PRACTICAL TREATISE

ON

THE MEANS OF REGULATING

THE STOMACH AND BOWELS,

BY

MEDICINE, DIET, EXERCISE, &c. &c.

IN CASES OF

HABITUAL AND OTHER VARIETIES OF CONSTIPATION;

OF SIMPLY IRRITATIVE & STRUCTURAL AFFECTIONS OF THE LUNGS, STOMACH, LIVER & RECTUM;

OF EPILEPSY;

THE VARIETIES OF RUPTURE, INTROSUSCEPTION, COLIC, AND DURING PREGNANCY;

AND ALSO

OF CORRECTING THE SCROFULOUS, GOUTY, RHEUMATIC, ERYSIPEL LEUCOPHLEGMATIC, NERVOUS, & MELANCHOLIC TEMPERAMENTS,

AND SECURING THE CONSTITUTION AGAINST THE

INROADS OF THE GRAND CLIMACTERIC DISEASE,

OR

BREAKING UP OF CONSTITUTION.

SECOND EDITION.

BY

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PREFACE TO THE SECOND EDITION.

ALTHOUGH the substance of this work had recently appeared in a popular publication, of an extensive circulation (the Monthly Gazette of Health), it has, in the space of a few months, gone through a heavy edition. This circumstance proves that, notwithstanding the numerous treatises that have been published on the diseases of the alimentary canal, and particularly on the digestive organs, a work was still wanted on the means of regulating the stomach and intestines, particularly for the important purposes of keeping up healthy digestion, obviating costiveness, and equalizing the circulation, which, in all constitutions, are more or less necessary to maintain a degree of general health, in order to destroy the germ of a constitutional malady, and to preserve the system from the baneful influence of atmospherical vicissitudes — the exciting causes of numerous diseases in this island.

In composing this work, the Author having chiefly kept in view the prevention of disease; it is

intended more for popular than professional perusal. The instructions he has given are not, like those of many modern writers on Indigestion, founded on any particular theory. They are the results of long experience and minute observation; and, on this account, the Author has had the satisfaction to find, it has met with the approbation of many eminent members of the profession. As a work on the prevention of diseases, more by diet, exercise, &c. than by medicine, the Author flatters himself it will be found a valuable companion to his Medical Guide.

The very flattering reception this work, and his Medical Guide, have experienced from an enlightened public, demands the Author's most grateful acknowledgment. He hopes his continued efforts to diffuse a knowledge of medicine among the bulk of mankind, with the view of enabling the public to detect the machinations and deceptions of unprincipled pretenders, who regard the practice of medicine only as a source of emolument to themselves, and whose sordid conduct has placed it on a level with the most artful trades, will be considered as a mark of his gratitude.

Bolton Row,
December 20, 1826.

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CHAP. I.

OF COSTIVENESS.

There is no complaint more general, especially among females, or a more frequent precursor of disease, than costiveness; and although, from the great variety of aperient medicines, one would suppose it might be readily obviated, it is often a predisposing, and not unfrequently an exciting, cause of the diseases that terminate the lives of more than one half of the human race. With females, constipation or suspension of the fæcal secretion is often constitutional; and, judging from the good state of the general health, and the debilitating effects of an evacuation daily, and of the operation of a gentle aperient medicine, it appears that some peculiar constitutions require a fæcal evacuation only twice a week. In all cases of disease it is of great importance to ascertain whether the patient be constitutionally subject to confined bowels; for on such patients an active purgative medicine will have a much more de-

bilitating effect than on one whose bowels are relieved every day. Indeed, on some delicate subjects, who are constitutionally costive, we have known a second dose of an aperient medicine produce a most alarming degree of general debility. It is, therefore, of consequence to ascertain in all diseases, especially those which terminate unfavourably by rapidly inducing debility, if the confined state of the bowels be constitutional, or has any thing to do in producing them, or in favouring their progress. The effects of a dose of a gentle aperient medicine in reducing the vital powers of an individual, whose habit is naturally costive, will point out the great absurdity of laying down a general rule for relieving the bowels every day, as that by Mr. Abernethy, or of administering active purgative medicines in a great variety of diseases, as recommended by Dr. Hamilton. It is very common for young ladies, especially at boarding-schools, in perfect health, not to have their bowels relieved oftener than once a week; and in the records of medicine, both of the ancients and moderns, many remarkable cases of confined bowels appear. Rhodius gives a case of retention of fæces for upwards of a month, and Panarolus one of three months' standing, which, he says, was not attended with the slightest disturbance of the general health, or inconvenience to the individual. The late Dr. Baillie published a case of costiveness of fifteen weeks' standing; and Chaptal gives an incredible case of a female,

who for four months had no discharge either from the bowels or kidneys, and very little by what is termed *sensible* perspiration, notwithstanding her diet consisted of broths and whey. The state of bowels in this case was attributed to excessive *insensible* perspiration. Although a confined state of the bowels, even for several days, is not necessarily a disease, it is, at certain periods of life, inimical to health, by bringing a constitutional disease into action, and by rendering the system susceptible of unfavourable changes in the atmosphere, or of the action of any baneful effluvium or contagion that may be in it. In females, at the age of fourteen, it is of great consequence to keep up a healthy circulation in the abdominal viscera; for if they be allowed to continue in a state of sluggishness, the determination of blood will not take place to the uterus, so as to produce its monthly secretion, on which their future general health greatly depends. In consequence of retention of the menses, a determination often takes place to the lungs, which, if neglected, will insidiously lay the foundation of incurable organic disease. In females, at the important period of life when the uterus ceases to perform its monthly office, if the bowels be allowed to continue torpid, a determination of blood will take place to the brain, so as to produce apoplexy; or to the lungs, so as to occasion pulmonary consumption; or a deposit in the substance of the uterus, which will lay the foundation of the most distressing disease to which

the female is liable. In males, after the age of fifty, when venous plethora prevails, if the action of the bowels be not kept up, and the circulation of the blood promoted through them, the sinuses and veins of the brain will become so loaded as to occasion apoplexy.

The importance of keeping up a certain degree of vitality in the abdominal viscera, at those periods of life when mischief in the lungs or in the brain is apt to occur, from partial congestion, must appear obvious to every person capable of reflection; but this is not to be accomplished solely by purgatives; for, as we have stated above, constipation is often constitutional, and not dependant on a want of energy, but on some peculiar state of body, which will not admit of frequent evacuations; and in those cases which are dependant on sluggishness of the intestines, &c., purgative medicines are not so necessary as a stimulating stomachic, and other means which are capable of promoting the circulation through the abdominal viscera, as friction over the bowels, flannel next the skin, horse exercise, dancing, &c., and such internal stimulating medicines which increase the irritability of the muscular coat of the intestinal canal; to which may be added the powerful agent, electricity or galvanism, which act immediately on the muscular coat and glands of the intestines.

Professor Cullen notices three species of costiveness:—the first arising from weakness (obstipatio debilium), which occurs in weakly people, or

persons whose digestion is bad;—the second, from rigidity of fibres (obstipatio rigidorum), in persons whose fibres are preternaturally rigid and temperament melancholy;—and the third, from obstruction (obstipatio obstructorum). Dr. Good notices only two species, which he terms constipation and obstipation. "The first, viz. *constipation*," he says, "occurs in persons of a compact and robust habit, with hearty appetite and strong digestive powers," which he thinks arises from "the intestinal absorbents occasionally evincing an *excess* of action; and the fæces, while they become hardened in consequence of such action, assume from their copiousness the figure of the rectum." The increased action of the absorbents of the intestines, to which Dr. Good attributes this species of constipation, he says, arises from violent and sometimes slight exercise, (heating the blood and throwing off an excess of fluid in the form of perspiration)—too stimulating a diet, particularly of *rough* port wine, (which, says he, by *exciting* the sphincter of the rectum to an augmented action as well as the absorbents of the intestines, lays a double foundation for an accumulation of fæces)—from too small a proportion of fluids compared with that of solid substances,—and, lastly, from too astringent a diet, astringents, in his opinion, retarding the peristaltic action.

The costiveness of robust people, whose digestion is perfect, we should rather attribute to the quantity or quality of the bile, than to an increased

action of the absorbent vessels of the intestines; and as to violent exercise being a cause, it is, generally speaking, an excellent preventive, the complaint being very frequently an attendant on indolence and a sedentary life. It is very difficult to account for the constipating effects of those articles which produce the sensation on the organs of taste, termed astringent. We are disposed to attribute their effects to their acting more on the secerning vessels of the internal surface of the intestines, preventing a proper secretion of fæcal matter, than to its stimulating effects on the absorbents; and as to the opinion that the action of astringents on the sphincter muscle of the rectum is a cause of costiveness, it is ridiculous; the office of the longitudinal fibres of that muscle being to expel, and not to retain the fæces. But, if astringents act, by invigorating the absorbents, why does rhubarb, which is, chemically speaking, a strong astringent, act as an aperient? The fact is, that on robust subjects, whose digestion is good, a mild mucilaginous diet, as vegetable and animal jellies, have a more constipating effect than stimulating articles; and surely Dr. Good will not say that they produce the effect by *stimulating* the absorbents. Although Dr. Good has discovered that astringents produce costiveness, *by stimulating the absorbent vessels,* in the subsequent sentence, he says, the same species arises from "*weakness* of the peristaltic action, or *sluggishness,* or *torpitude* of the bowels from *deficiency*

of stimulus." !! The Doctor's medical treatment of his first species, we shall give in his own words.

"The best aperients in the present species of costiveness, are those which quicken the descent of the fæces with as little *increased action* as possible, as diluent drinks sweetened with manna, sugar, or honey; the expressed oils of mild vegetables, as the pistachio, olive, and almond; oily farina of the cocoa nut in the common form of chocolate; figs, tamarinds, the pulp of cassia, alone or in the compound of lenitive electuary; neutral salts. Dr. Arbuthnot advised the use of butter, marrow, and fat; and it is probable," says Dr. Good, "these may have *some* effect. Dr. Cullen tells us he has found four ounces of fresh butter taken in the morning, produce a stool or two more than usual in the day. Nauseating doses of calomel and ipecacuan, or of calomel and antimonial powder, will also frequently be found of use; and the patient should habituate himself to evacuating the bowels at a certain hour of the day, and should even accustom himself to an effort to this effect, though he may not always be successful. And where this milder process fails, the more powerful purgatives must be had recourse to."

"In some instances of very great difficulty, and of an anomalous kind, an affusion of cold water has been accompanied with great success, after every other device had completely failed,—and

oily, resinous, and mercurial cathartics, quicksilver in its metallic state, antimonials of various kinds, and injections of every sort, have been tried in vain. Two striking examples of this are noticed in a letter from Dr. Spence of Guildford to Dr. Reynolds, published in the Medical Transactions of the College. The patients were 'from fifty to sixty years of age, the one of temperate habits, the other addicted to spirituous liquors. As a last resort, they were led into a wash-house, laid on a cold, wet, brick floor, and the water was dashed over the lower extremities and the pubes, for a quater of an hour at a time; in addition to which, cold wet towels were applied to the abdomen of one of them in his bed; cold water was also drank at the same time. Both patients recovered."

The second species of costiveness noticed by Dr. Good, viz. *obstipation,* is the consequence of debility, or diminution of the irritability of the muscular fibres of the intestines, occurring generally in elderly subjects, or persons of infirm or delicate health. The refuse matter of the aliment being retained in the intestines, until it undergoes decomposition, a considerable quantity of gas is disengaged, and the contents sometimes become so acrimonious as to occasion considerable irritation and looseness. The expulsive power is often so feeble in very elderly people, and sometimes in females during the last stage of pregnancy, (in consequence of the pressure of the

impregnated uterus), that it has been found necessary to unload the rectum by mechanical means, and for this purpose the late Drs. Warren and Clarke often employed a marrow spoon.

According to the professional acceptation of the two terms—constipation and obstipation, a person is said not only to be costive when the bowels are not regularly relieved every day, but also when the fæces are too hard to receive a form from the rectum, or when they are what is technically termed scybalous, i. e. in hardened globular masses, from being moulded in the cells of the colon. Our popular readers must bear in mind that the daily discharge is, however, relative; for the constitution accustomed to a fæcal evacuation every fourth day, cannot be said to labour under a disease, if three days should elapse between the periods, unless the general health be disturbed by it, or the motions too hard to pass with ease. When costiveness, either constipation or obstipation, is attended with head-ache, giddiness, colicky pains, distension of the bowels, flatulence, loss of appetite, and other symptoms of indigestion, it should then be considered a disease.

When we consider the great variety of articles of the materia medica which are capable of increasing the peristaltic motion of the intestines, the great mildness of some, and the drastic properties of others, we are disposed to say that the person must be little better than an idiot, who cannot contrive, by means of some of them, to

obviate a degree of costiveness which in his constitution is clearly inimical to health; but this is, under certain circumstances, often very difficult.

The proper alvine discharge does not entirely consist of the refuse of the aliment taken into the stomach, a considerable portion being a secretion from the internal surface of the lower part of the intestinal canal, named the colon; for on dissection we find the contents of the upper or small intestines free from the fæcal characters; and on examining the folds of the colon, the true fæcal secretion may be distinguished from the refuse of the food. Hence a substantial fæcal discharge may be produced, by means of a purgative medicine, four or five times a day, from a patient who has not for many weeks taken any substantial food, and even when they have been supported by clysters of broth. In cases of constipation, or obstipation, the object of practice is not to hurry the contents of the small intestines into the large ones, but to promote the fæcal secretion of the colon; and this secretion being entirely excrementitious, it is, in our opinion, of much greater consequence to the general health, than that of the liver (bile), to which it is now the fashion to attribute nearly all the diseases, local and general, that occur in the human body.

The colour of the fæces *, on which Mr. Aber-

* The colour and odour of the fæces are much influenced by medicine, and even by articles of diet. The aloetic medicines produce dark, slimy, and very offensive motions. Senna gene-

nethy lays great stress, as an indication of the state of the digestive organs, unquestionably depends more on the secretion of the colon than on that of the liver. When the coats of the colon are diseased, the fæces are often black, and, from the escape of hydrogen gas, highly offensive; and if the colon be stimulated by an acrid injection, or disturbed by inflammatory action in its neighbourhood, as the lumbar abscess, &c., the fæces are generally morbid both in colour and odour. An injection of thirty drops of the nitrico-muriatic acid, in half a pint of tepid water, into the colon, produces the same griping pains in the course of the colon, and coloured motions, that follow the immersion of the legs in the nitrico-muriatic warm-baths, which the late Dr. Scott and others have attributed to the action of the absorbed acid on the liver. It is a curious fact, that hydrogen gas is disengaged in no other parts of the intestinal

rally produces very dark motions, which emit a cadaverous odour, often attended with a considerable escape of hydrogen. Rhubarb occasions motions of the yellow colour, which, Mr. Abernethy says, indicates a healthy state of the liver, &c. The purging motions of calomel are often very yellow, and those by henbane sometimes of a light clay colour. This appearance, being also produced by opium, has been attributed to its paralyzing or debilitating effects on the liver; but may it not be attributed to its interrupting the processes of chymification and chylification, and checking the fæcal secretion of the colon? Almost every aperient medicine probably produces motions either of different appearance or odour. The effects of steel in rendering the fæces black is well known.

canal than the colon and rectum, that which is found in the stomach and small intestines being carbonic acid gas.

Although it is common to meet with individuals (especially females) in perfect health, whose bowels are seldom relieved oftener than once a week, and who experience a considerable degree of general debility from a copious operation of an aperient medicine, it is in general prudent to produce more frequent evacuations, by gradual and gentle means; a retention of fæces, and a deficiency of the fæcal secretion of the colon, as we have already observed, predisposing the constitution to epidemic and contagious diseases, and tending, in other respects, to shorten life; for it has been observed, that subjects, whose bowels have not been regularly relieved every or every other day, very rarely attain the age of forty; whilst those who pay attention to the regulation of their bowels, not only live many years longer, but escape the epidemics of the seasons. We shall, therefore, give a chapter on the treatment of constitutional costiveness, although the general health is not apparently disturbed by it.

CHAP. II.

TREATMENT OF CONSTITUTIONAL COSTIVENESS.

In subjects from the ages of ten to thirty years, constitutional or habitual costiveness should be corrected by gradual and gentle means: for, if active or powerful purgative medicines be administered daily, or two or three times a week, as directed by Dr. Hamilton, and other practitioners, to "conquer the habit," constipation will, after the remedies are discontinued, recur for a longer period. After the intestinal canal has been well emptied by a drastic purge, it will not, in a habit constitutionally costive, fill again for some days, so as to excite the peristaltic motion. We have known the bowels to remain costive for a fortnight, after a copious operation of a potent purgative medicine, in persons who had been in the habit of visiting the water-closet once a week: and we have known the daily exhibition of an active purgative produce, in similar cases, serious mischief in the rectum, and alarming degree of general debility; and we have no doubt, many thousands have been

hurried to their graves by a blind perseverance in this plan of treatment.

The most obstinately costive habit may, in general, be conquered, by adopting certain articles of diet which possess a slight aperient property, and by avoiding those which have an opposite quality. Of the former class, perhaps, the most efficacious are, ripe and boiled or baked fruit: as apples*, pears, plums, figs, gooseberries, currants, mulberries, &c., which, in various forms, with a person, whose digestion is good, may be made to constitute a part of every meal. The stem of the rhubarb plant, when baked (without pastry), is also a good aperient article of diet. The aperient effects of these articles are greatly promoted by taking fifteen or twenty grains of the carbonate of soda, dissolved in a small tumbler of water, about two hours after a meal. Green vegetables (boiled), gruel, and honey, are also proper articles of diet. Jellies (vegetable and animal), pastry, mealy potatoes, biscuits, and astringents—as port wine, cinnamon, nutmegs, &c., are improper. Cheese-whey and water are the best articles to take as a common beverage. The proportion of vegetables should exceed that of meat; and the latter should be taken underdone, so as to contain the red gravy, and should

* In Italy, it is a common, and no doubt a good, practice to add the pulp of cassia, and a little of the preserved quince, to apple and plum pies and puddings, to render them aperient.

be well masticated, with some vegetable matter—as cabbage, *brown* bread*, &c. Mustard, black pepper, and salt, are also proper additions.

The following instructions for making this valuable article of diet were communicated to us by Henry Forbes, Esq., and, by his request, inserted in the eighty-fifth number of the Gazette of Health:

"First Receipt.—To four pounds of best household flour, add two table-spoonsful of yeast, and half a pint of warm water; let them stand two hours in a warm place, about four feet from the fire; then add, half a pound of bran and a tea-spoonful of salt, and proceed to make the dough with skim milk or warm water; then cover it up as before, and let it stand one hour more: then begin to heat the oven, which will require one hour. Make the loaves, and put them into warm dishes, and let them stand twenty minutes before they are put into the oven. This size loaf will require an hour to bake. When taken out, turn the bottom upwards. The following morning it will be fit for use. Bread, thus prepared, is greatly preferable to that made with flour, ground, and all the bran kept in it.

"Second Receipt.—Cause the wheat to be ground, retaining the *whole* of the bran; take half a peck of such flour, and put in a suitable vessel (wooden is best); mix a quarter of a pint of small-beer yeast, to a quart of luke-warm water: put this in middle of the flour, and stir it well round with a wooden spoon, until it is a thick batter; the flour remaining on edges of vessel unmixed, sprinkle over the top; then put a napkin over the top of vessel, and set it before the fire, about three feet distant; to remain there two hours, until it rises well; then take it up, and strew over it a table-spoonful of salt, and make the whole into a stiff paste; before such is done, add a little more warm water, if requisite; then put it down to the fire, until it rises again, which will probably occupy from half an hour to an hour: when it has risen again thoroughly, take it up, knead it into the dough. This quantity is sufficient for four loaves. Put it into tins, and set it again before the fire,

The exercise of riding on horseback, and of walking, are powerful auxiliaries to this diet; but that in a coach, with easy springs, has generally a contrary effect. The person may also habituate himself to go to the water-closet about half an hour after breakfast every or every other day, and to attempt to exercise his mind on the bowels.* By persevering in this practice some

until it rises a little, and is then ready for the oven. It requires to be thoroughly well baked. It will be ready for use the second day. It is necessary to request the person who grinds the wheat to cause the bran to be ground fine as possible.

Mr. Forbes found the latter receipt best suited for him. By adding a LITTLE moist sugar and powdered caraway seeds, a wholesome sweet cake may be made."

By means of this bread, it appears, by a communication in the Gazette of Health, Mr. Forbes, who had been subject to obstinate costiveness for many years, brought his bowels into a regular state: and after being a great invalid, became a robust healthy subject. Dr. Paris attributes the aperient effects of bran to its *mechanical* action, " the rough particles or scales irritating the internal coats of the intestines; but the finer the particles of the bran are, the more aperient it proves. The decoction of the bran, which some employ for making bread, instead of water, having the same effect as the rough bran, it is clear it possesses an aperient property. It appears, by an analysis of bran, that it contains a peculiar article termed *febrin*, which, being an important ingredient of the blood, some able practitioners suppose it to be highly nutritious, and to invigorate the muscular system.

* The influence of the stimulating and depressing passions of the mind on the stomach and intestines, and also on some of the viscera of the abdomen and pelvis, is well known; the

weeks, many individuals have succeeded in their object. He should not, however, make an effort, amounting to what is termed *straining;* for, by it, a degree of afflux of blood to the brain has been produced, as to occasion serious mischief. We have known a fatal case of apoplexy immediately to follow such effort to relieve the bowels, and that too when the system was not in a plethoric state, the patient having, a few hours previously to his visit to the closet, lost twenty ounces of blood by cupping. One of the advantages of

sudden action of stimulating ones, as anger and joy, soon after a meal, interrupting digestion, and sometimes exciting vomiting; and the sudden action of grief occasioning violent purging. By frequently directing the mind to the intestinal canal, and making an effort to bring it into action, by exciting the diaphragm, and the abdominal muscles, we think a person might, by perseverance, bring the muscular coat of the intestines, in some degree, under the influence of the mind, the peristaltic motion being evidently easily retarded or increased through its medium. Dr. Hunter has noticed a case of a prolapsed uterus, which the female had, by frequent efforts, brought so far under the action of the mind, as to move the protruding part backwards and forwards; and we have no doubt, those who have established regular bowels, by making frequently, for some time, a kind of mental effort, have brought the muscular coat of the lower intestines, in some degree, under the influence of the mind. We know a medical gentleman who cannot remain ten minutes in the shop of a bookseller in Fleet-street, without experiencing an urgent necessity of visiting his water-closet, and that too after having had his regular daily evacuation. This effect he attributes to the doleful countenance of the bookseller. The fact shews how easily the bowels are disturbed through the medium of the mind.

bringing the bowels into a regular state, by simple means, or by articles of diet, is, the important functions of the stomach, and of the small intestines, not being disturbed by them, the body is not deprived of the benefit of diet. If simple or dietetic means should not succeed, an aperient medicine should be employed, which will neither disorder the stomach, interrupt the process of chylification in the duodenum, nor prevent absorption of chyle. It has been observed, that some of the purgative articles employed in the practice of medicine, operate more on one portion of the intestinal canal than on another; viz. that the neutral salts, as the Epsom, Glauber's, and the compound of them, sold under the name of Cheltenham salt,—the nostrum termed Seidlitz salts, and the purgative mineral waters,—by their peculiarly irritating quality, hurry off the contents of the stomach and small intestines, and do not act on the internal surface of the colon; the consequences of which are, when either is taken immediately after a meal, the evacuations contain undigested food; and when two hours after a meal, even chyme and chyle, without much fæcal matter.

The late Dr. Cheston, of Gloucester, communicated to us an instance of a lady having passed very hard fæces (scybala), which, it appeared, from containing the seeds of currants she had taken five weeks previously to her visit to Cheltenham, had remained in the cells of the colon during that time,

although she had had several liquid evacuations every day for a month from the Cheltenham water: and similar cases have been noticed by eminent practitioners, after daily purging by castor oil and the aperient salts. In those cases, it is clear that the thin fluid, the saline water and castor oil had hurried through the small intestines, passed over the hard fæces, and that it did not stimulate the colon so as to promote the fæcal secretion, or to bring it into action.

Another very great objection to the saline purgatives is, they reduce the temperature of the stomach and bowels, so as to diminish the transmission of blood through them; the consequence of which is, the circulation to the head is increased; and hence it is common for invalids, immediately after taking a long draught of a saline mineral water, or of a solution of the Epsom, Glauber's, or Cheltenham salt, to become very giddy, or to be affected with the most distressing head-ache, and some to be affected with symptoms of mania.

Another objection to a saline medicine is, so great a proportion of the saline particles is conveyed to the urine, as to irritate the neck of the bladder, prostate gland, and urethra, when preternaturally tender or disposed to inflammatory action. For these reasons, we condemn the exhibition of the neutral salts, in cases of constitutional costiveness. In a late number of the Gazette of Health, we have given a prescription for a pill to obviate costiveness, and to promote digestion;

but to the species of costiveness on which we now treat, in consequence of not being attended with indigestion, the aperient ingredient (extract of rhubarb) is not applicable, on account of its rather increasing than decreasing the disposition to costiveness, after it has performed its aperient operation. The article which we have found to agree best with the stomach and small intestines, and to promote the fæcal secretion of the colon, without irritating the rectum, is jalap, a purgative medicine which has unfortunately fallen nearly into disuse among some class of practitioners, probably in consequence of its becoming a *popular* article.

The following is the form we generally adopt:

> Take of the alcaline extract of jalap*, 1 drachm;
> oil of caraway seeds, 20 drops;

Mix, and divide the mass into twenty pills. One, two, or three of these pills may be taken every or

* The extract, when *properly* made, is unquestionably the best preparation of the jalap root. The powder and the tincture, in consequence of the peculiarly irritating sensation they produce in the fauces and gullet, often excite slight nausea. The extract sold by most wholesale druggists, in consequence of the overboiling of the root and hasty evaporation of the decoction, is scarcely aperient. The extract we employ is made at the Medical Hall, 170, Piccadilly, by gently evaporating an infusion of the root in proof spirit, in a water bath, with an addition of a small quantity of subcarbonate of potass to prevent a separation of the resin from the gum on the evaporation of the alcohol of the menstruum. Ten grains of this preparation are equal to a drachm of the extract made by wholesale druggists.

every other night, according to their aperient effect; *i. e.* if the bowels have been accustomed to one evacuation in the course of a week, the dose should be regulated so as to produce one every fourth or fifth day; and after this state has continued about three weeks or a month, it should be increased so as to produce an evacuation every third day, and in this manner the person may go on till he has got his bowels into a proper regular state of one evacuation every or every other day, as he may find best to agree with his constitution. After the bowels have been accustomed to an evacuation every or every other day, for two months, the dose may be gradually diminished, so that the medicine may entirely be omitted in the course of two or three months, when, in general, the aperient diet, noticed page 14, will keep them in a regular state.

If the pills of the alcaline extract of jalap, with the alterative diet, should not succeed in increasing sufficiently the peristaltic motion of the intestines, we should apply a remedy to the seat of costiveness, viz. the colon, (the part of the intestinal canal which secretes the fæcal discharge). For this purpose, about a quart of water, with a table-spoonful of common salt, heated to about 100 degrees, may be injected into the rectum by means of an elastic bag, increasing gradually the propelling force; so that the fluid may be conveyed into the colon without exciting irritation by over-distending the rectum. See *Receipts for Lavemens*,

Nos. I. II. and III. in the Appendix. In France and Italy this remedy is preferred, in cases of costiveness, to the exhibition of purgative medicines by the mouth, and it is certainly very preferable to those cathartic drugs which disorder the organs of digestion, or hurry the chyle through the small intestines *. The colon and the kidneys are the principal depurators of the blood. The idea of the general health being in the smallest degree influenced by an impure or foul state of the blood, (an opinion which prevails throughout the Continent,) has been much ridiculed by some English practitioners, who are, by the weak part of the profession, regarded as *great* authorities;

* Gruel, or thin starch, so generally employed as a lavement in cases of costiveness, very rarely produces the desired effect, in consequence (from their consistency) of not mixing with the slime of the intestines, or on the retained fæces. Warm water, without a neutral salt, will act more efficaciously, by softening the fæces, than either gruel or starch with an aperient salt. A short pipe, covered with elastic gum, should be employed by those who are in the habit of using a lavement, to avoid irritation of the rectum, which, from its peculiar texture, is disposed to structural mischief. The evacuations following a clyster should be inspected in order to ascertain if they contain fæcal matter. We lately met with a case of obstinate constipation in a female, whose mother told us that the lavement of warm water had produced an excellent effect, and that it was always followed by a purgative motion. The system not being relieved by it, we desired the patient, instead of going to the water closet, to make use of a night chair. This was accordingly done; and, on examining the evacuation, we found it to be only the water that had been injected; and this, we suspect, is often the case.—See article *Clysters*.

but, we conceive, whoever considers the process of tation which is constantly going on in the living body,—that the chyle formed in the duodenum, from the food digested in the stomach, is conveyed to the mass of blood, to repair the parts of the body that require it, and that the old particles are also conveyed to the mass of blood,—must admit that if the depurators do not perform their office, by separating from the mass the impurities which are conveyed to it, the blood must necessarily become foul.* Now what are the organs which act as depurators of the blood? The office of the kidneys all physiologists allow to be, to convey foul and superfluous serum from the blood, but their secretion is a fluid. The liver was regarded by Boerhaave as a depurator of the blood; but if this were really its office, one would suppose that the secretion would not be conveyed into the part of the intestines, in which the chyle is formed for the nourishment of the body. Although it is

* Mr. Abernethy states, that the blood does become foul in consequence of the food not being properly digested. In his Treatise on Constitutional Origin of Local Diseases, he observes, "It is probable that much undigested matter is absorbed by the lacteals, when the digestive powers fail in their functions. This (says he) is apparently the case in diabetes, where the vegetable matter floats in the serum of the blood, rendering it turbid, and afterwards combines so as to form a substance resembling sugar in its passage through the kidneys. The strong odour, which various kinds of food impart to the urine, indicates that different substances are absorbed indiscriminately from the intestines.

the fashion to attribute almost all the constitutional and local diseases, of common occurrence, to some unhealthy condition of the liver; various opinions exist as to its office in the animal economy, some supposing that the use of the bile is to keep up the peristaltic motion; others, that it is a chemical agent, by which the chyle is separated from the chyme formed in the stomach; and others, that it is concerned in converting the chyle conveyed to the mass of blood, into blood.—With respect to its real office, we agree in opinion with the physiologist, who frankly states his belief, that it remains to be discovered. The secretion from the internal coat of the colon is clearly from the blood, and we believe no person will dispute its being *excrementitious*. The colon, from its situation and the nature of its secretion, is probably the chief depurator of the blood in the human body; and if so, it is of great consequence for the preservation of health to keep up its action. In chronic affections of the skin, attributed by the French physicians to foulness of the blood, lavemens, which increase the secretion of the colon, have certainly proved very beneficial. We have digressed so far from the subject of constitutional costiveness, with the view of reconciling those to this class of remedies who are prejudiced against them.

As an auxiliary to internal medicine and to a laxative diet, the warm-bath may be employed; and the object being to stimulate the intestinal

canal, the degree of heat should exceed the temperature of the abdominal viscera, which is from 98 to 100 (*Fahr.*) When the intention is to stimulate any part of the contents of the abdomen of a languid leucophlegmatic or chlorotic subject, we generally order the water to be heated to 96 degrees, and after the patient has been in it about eight minutes, the temperature to be gradually increased to 108 or 112, which we have found to act on the intestines. In an inflammatory or plethoric habit, the latter temperature, by stimulating the brain and accelerating the circulation, may, especially if the subject be predisposed to apoplexy, be productive of mischief in the head.

If the foregoing treatment should not succeed in conquering the disposition in the intestines to costiveness, we may attribute its obstinacy to preternatural rigidity of fibre (a species termed by Professor Cullen, *obstipatio rigidorum*); in which case an anodyne will promote the operation of an aperient medicine, the laxative diet, &c., by diminishing the rigidity of the intestines, &c. For this purpose, four grains of the extract of henbane may be given at bed-time, or twice a day; and, to promote its operation, the warm-bath (at a relaxing heat, about 95 or 96) should be employed three times a week. The extract of henbane, the tincture of colchicum seeds, and the inspissated juice of the wild cucumber, termed *elaterium*, are proper antispasmodic purgatives in cases of costiveness attended with rigidity, on account of

increasing instead of diminishing the peristaltic motion of the intestines. Opium, and the other vegetable narcotics, are more efficacious in removing preternatural rigidity; but, by lessening also the power of the muscular coat of the intestine, on which their peristaltic motion depends, they occasion costiveness. In looseness, and even in inflammation of the intestine, opium, by allaying morbid excitement, and diminishing the irritability of the muscular coat, is, when judiciously administered, a most valuable medicine.

If the pills of the alcaline extract of jalap, &c., the occasional use of a lavement, the henbane extract, with the aperient diet, exercise, warm-bath, &c., should fail to produce the desired effect on the bowels; one, two, three, or four of the following pills may be administered every or every other day, according to their effects on the bowels:

> Take of croton oil*, 10 drops; dried Castile soap, 2 scruples; alcaline extract of jalap, 1 drachm; oil of caraway seeds, 12 drops.

This composition being a very drastic purgative, it should be exhibited only in cases of costiveness which have resisted the combined means we have

* We have lately met with a case of apoplexy, in which four drops of this article, rubbed over the tongue, produced, in the course of an hour, several fæcal evacuations. In India, it is a common practice to rub a few drops of it over the navel, in cases of costiveness, when the stomach is nauseated; and we are credibly informed that it always succeeds sooner or later to produce copious fæcal evacuations.

recommended; but drastic as they are, they are certainly preferable to the remedy employed by the late Drs. Reynolds and Spence, noticed page 8, viz. affusion of cold water over the abdomen and pubes; which acts by producing inflammatory excitement, the progress of which, in some constitutions, is frequently so rapid as to destroy life in a few days.

Of the popular remedies for costiveness, there are three, besides the neutral salts noticed page 18, which are very objectionable, viz. aloes, castor oil, and lenitive electuary.

The extracts termed hepatic, socotrine, and Barbadoes aloes, when long continued, are apt to occasion piles or irritation about the rectum, which, in an elderly person, has been productive of serious mischief. The "*famous* Scotch Pills," as they are termed, being composed of aloes and oil of anniseed, have been the cause of the maladies (scirrho-contracted rectum, cancerous ulcerations), to which many thousands fall a sacrifice in this country. The objection to castor oil is, that unless it be digested in the stomach, it will become so acrid in the small intestines as to produce liquid motions, which, like those of salts, will pass over hardened fæces in the colon. By nauseating the stomach, it also frequently disturbs digestion. A great objection to lenitive electuary is, that it will not keep many days without fermenting; in which state it soon becomes acid in the stomach, and occasions distressing flatulence and griping pains.

On revising the foregoing instructions for obviating constitutional costiveness, we find we have omitted to notice a very powerful auxiliary, if not a remedy, for this common complaint, viz. galvanism. If the aperient pills of jalap, lavemens, with the laxative diet, exercise, &c. should not succeed, galvanism should be resorted to, in preference to a continued use of drastic purgatives. For the purpose of obviating costiveness of children, cheese-whey, sweetened with manna, taken every morning before breakfast, is an excellent remedy. With the view of removing superabundant slime from the intestines, a common attendant on costiveness, a few grains of the Basilic powder may be given once a week, for the course of a month or six weeks. This article, in case of worms being present, will dislodge them. See *Constipation of Infants.*

We shall now proceed to notice the treatment of the different species of costiveness, for which there are evident causes,—as the costiveness from sedentary life, intense application of the mind, and from debility—costiveness attendant on retention of the menses, and accompanied with symptoms of incipient consumption; of which complaints it is often the occasional cause—costiveness attendant on ricketty and unhealthy (phlegmatic) children, and of gouty, rheumatic, epileptic, dyspeptic, &c. subjects; which require particular treatment—and the costiveness or retention of fæces from mechanical causes; as impregnated

womb, introsusception, stricture of the colon, &c. &c. &c.

We shall conclude this chapter with two cases of habitual costiveness, and practical remarks, from the pen of Dr. Borthwick, an eminent physician of Edinburgh, which were lately published by Dr. Duncan, jun., with the view more forcibly to point out the mischief that arises from neglect of the bowels.

"In the following very brief notice, I wish to record one or two facts relative to the bad effects of *habitual* costiveness, and illustrative of the deceitful train of symptoms which may be observed. I have no doubt that very many such cases may have occurred to some of the readers of your Journal, and if so, they will the better understand the very interesting nature of the following cases.

"In the autumn, I was consulted by an English lady, who had been in very delicate health for some years, and who had been sent to Madeira three years before, under the impression that she was consumptive. She had had severe pains in both sides, frequent cough, difficulty of breathing, and emaciation, which symptoms were considered to indicate disease of the lungs, and for which she was repeatedly blistered and leeched, and every other remedy which is commonly adopted in the early stages of pulmonary consumption, was had recourse to. She spent a year at Madeira, and returned to England much improved in her health,

and was held forth as a living instance of the good effect of *climate* in *curing* consumption.

"This lady soon after married, and while on a visit to some friends in this country, she was attacked with a recurrence of those identical symptoms for which she had been sent to Madeira. Her friends were in great dismay, and the lady herself expressed much apprehension about her situation; and certainly her general delicate appearance as she lay on her sofa, with dry cough, short breathing, and flushed cheek, led me (*prima facie*) to fear that there were some grounds for alarm.

"After hearing her own statement of her case, I was agreeably surprised to find her pulse beating at 76 in a minute; and at the same time, I observed the eyes suffused with bile, the tongue loaded, bitter taste in the mouth, no appetite, the bowels confined for some days past, and *habitually* torpid; and on examining into the exact seat of the pain, so much and so anxiously complained of, I ascertained it to be seated on the one side in the commencement of the colon termed the *caput cæcum coli*, and on the other in the sigmoid flexure of the same intestine, while at times the pain was described as shooting up into the chest, being aggravated by cough, but always most severe in the parts already described. The practice here was obvious; and, on giving my opinion and directions, I perceived a kind of dissatisfaction and

uncertainty about my patient, who candidly told me, that 'leeches and a blister would have been more acceptable advice, and more consonant with her own notions about her complaints, as she recollected but too well that she was affected in the same way previous to her being sent off to Madeira.' I requested, however, that she would devote three days to my prescriptions, by the end of which time I ventured to promise her that her fears would be in a great measure removed. During these three days, such copious (and to the patient, astonishing) evacuations of *indurated* fæces were procured, that she in vain felt for the pain in her sides, which, with all the other deceitful symptoms under which she had laboured, entirely owed their existence to the vast accumulation in the parts already described. I need scarcely add, that, by regular and systematic attention, on this lady's part, to keep up a gentle but steady action of the bowels, all fears of consumption vanished; and she has since enjoyed good health.

"Mrs. G., 24 years of age, from her infancy of an obstinately costive habit, was seized, about 10 P. M., on 4th August, 1823, with violent pain of the abdomen, accompanied by constant retching and tenesmus. She continued in this state during the night, and at 6 A. M. I was called to see her, at which time she was very low after the exhaustion caused by so many hours of constant sickness.

"The extreme distress of this lady, and the

general alarm of her attendants, ill accorded with the time lost before assistance was sent for. I was, however, informed that this violent complaint was of frequent occurrence, and was generally considered 'a cramp in her stomach,' which went off in an hour or two; but that, on the present occasion, the 'cramp' seemed more severe, and of longer continuance, than had ever before been experienced. It was also stated, that Mrs. G. had taken various articles during the night, which in former attacks used to 'settle the pain,' but all of which had been rejected immediately. The patient was sitting up in bed, resting her elbows on her knees; her countenance pale, and peculiarly anxious; her skin bedewed with a cold clammy moisture; her tongue brown and parched, and her thirst urgent; her pulse was only 80, and low. My first care was to ascertain the exact seat of the pain complained of, and to satisfy myself that no species of rupture had taken place. On examining the abdomen, and tracing the course and arch of the colon, I discovered a hard, knotty, and irregular surface, as if one felt a parcel of walnuts contained in a bag. There was no doubt that this lady's sufferings must have continued more or less, until these lumps were got rid of, which were obviously scybalous masses impacted in the great arch of the colon.

" As soon as the general irritability was somewhat assuaged by the warm-bath, and applications of hot brandy to the epigastric region, a dose of

castor oil was taken, which passed through the bowels, leaving all the mischief behind it, as did also a dose of Epsom salt taken the day before. I now ordered 15 grains of the compound extract of colocynth to be taken every third hour, and, in the intervals, a wine-glassful of a solution of Epsom salt in peppermint water. Hot fomentations, sprinkled with laudanum, were kept constantly applied over the abdomen; and the urgent thirst was mitigated by sucking thin slices of lemon. After some hours, the cause of this lady's illness was set in motion; and during that night, and the whole of the following day, an incredible discharge of large hardened lumps took place; the arch of the colon was unloaded; pain and sickness ceased; and another warm bath at bed-time produced such a soothing night's rest, that this patient declared she felt better than she had done for some months past. She, of course, was desired to persevere for some time in the use of laxative medicines; and I am happy to say, she has never since had a return of the '*cramp in her stomach.*'

"I commenced by saying, that I would detail two very simple cases, of every-day occurrence in our profession; but simple indeed as they may appear, I trust that, to the practical reader, they will be considered abundantly interesting."

CHAP. III.

COSTIVENESS OF THE SEDENTARY AND STUDIOUS.

People who are almost daily confined eight or ten hours to a counting-house, or whose minds are intensely occupied in deep researches, or study, although they take exercise, are very subject to costiveness; and, in the course of a short time, become affected with all the consequences of bad digestion; as flatulence, head-ache, nervous restlessness, lowness of spirits, and other distressing hypochondriacal feelings. In such case, we have two objects in view, viz. to keep up the power of the digestive organs, and to increase the peristaltic motion of the intestines. For these purposes, two or three of the following pills may be taken twice or thrice a day (with a wine-glassful of cold water), so as to produce an alvine evacuation once a day.

Take of extract of fumitory, alcaline extract of jalap, and extract of rhubarb, of each one drachm:—Mix well together, and divide the mass into thirty pills.

If this composition should not succeed, recourse may be had to a lavement of a solution of salt, as recommended for constitutional costiveness, p. 21. If the brain should become overloaded with blood, to which the clerks of merchants and bankers, and also the deeply studious, are very subject, an active dose of a purgative pill, which will effectually empty the bowels, and also purge the viscera of the abdomen, as the antibilious pills of the late Dr. Dick, termed the Bengal Antibilious Aperient Pills, may be taken once a week*. Although these means may succeed in obviating costiveness, it is worthy of notice, that without exercise, the person will not enjoy good health, or be entirely free from hypochondriacal feelings. Such exercise as will shake the bowels, as riding on horseback, or on the box of a coach, should therefore be taken every morning or evening, when the stomach is most empty. The game of billiards affords good bodily exercise, and amusing the mind at the same time, often proves very beneficial. The position of stooping over a desk during writing or reading, on account of favouring an afflux of blood to the head, preventing a due expansion of the chest during inspiration, and interrupting the functions of the digestive organs, should be avoided. The advice to visit the water-closet once a day to bring the bowels into action, given in

* The composition of these pills is noticed in the first Volume of the Gazette of Health, page 158.

page 16, should be observed by those who are under the necessity of leading a sedentary life. The studious should occasionally relax their minds by some amusement: for this purpose some philosophers of the present day, whose minds are much engaged in chemical investigations, recommend angling; but as it is often not sufficient to detach the mind from a favourite study, we should recommend the game of billiards, or of whist, both of which requiring a little calculation, generally occupy and amuse the mind. The shower-bath is an important auxiliary, and sometimes proves a remedy for costiveness occasioned by an inactive life, or close engagement of the mind on intricate subjects. In the latter case it greatly allays that nervous excitement of brain which deep investigation is apt to produce, and which probably, by exhausting its nervous energy, occasions sluggishness of the intestines.

On the dinner meal of merchants who lead sedentary lives, and of clerks who are much confined to the counting-house, Dr. Paris, in a late publication, makes the following remarks:

"*In* ALL *cases of feeble or imperfect digestion, the valetudinarian ought never to take his* PRINCIPAL *meal in a state of fatigue*—and yet, (says the Doctor,) let me ask, whether there is a habit more generally pursued, or more tenaciously defended? Aye, (proceeds the observant Doctor) and defended too upon *principle!!* The invalid merchant, the banker, the attorney, the government

clerk," says he, "are *all* impressed with the same belief, that after the *sedentary* occupations of the day, to walk *several* miles to their villas, or to *fatigue* themselves with exercise *before* their dinner, or rather early supper, will sharpen their tardy stomachs, and invigorate their feeble organs of digestion. The consequence is obvious,—instead of curing, such a practice is calculated to perpetuate, and even to aggravate the malady under which they suffer, by calling upon the powers of digestion at a period when the *body* is in a state of exhaustion from *fatigue*. Often have I, in the course of my practice in this town, cured the dyspeptic invalid, by merely inducing him to abandon so mischievous a habit."

If a merchant, or a clerk, either of a banker, attorney, or of a government office, were capable of walking *several* miles before dinner, we should suppose he could not be much of an *invalid*. If an invalid were so imprudent as to walk *several* miles before dinner, *i. e.* we presume ten or fifteen miles, he must expect to experience all the bad consequences of fatigue. The villas of those gentlemen are generally within the distance of four miles, and such a walk after confinement to a counting-house for five or six hours, must not only relieve the fatigued mind, but even invigorate the stomach, by exercising the muscles which had been in a state of indolence during the "sedentary occupation," and greatly tend to promote the peristaltic motion of the intestinal canal. The whole

body, by a "*sedentary* occupation," is unquestionably enfeebled; and walking, by amusing the mind, exercising the muscular system, and promoting the circulation in the extremities, will bring the stomach into action; and as to the *refreshing* effects of a dinner and a little wine, we presume "invalid merchants, &c." are as competent to form as accurate an opinion of them *from experience*, as Dr. Paris is from theory. Certain it is, if they were not to take such exercise, their systems would become plethoric; and if some organic disease should not take place either in the lungs, liver, or some internal viscus, apoplexy would probably terminate their lives. If invalids who are accustomed to exercise their minds in a sedentary state for five or six hours every day, or for six days out of seven, were not to take a walk before dinner, they would not only eat without an appetite, but that which they had forced into their stomachs would produce a sense of oppression, and probably require three or four hours longer to pass through the process of digestion, than if the invalid had previously relaxed his mind, and exercised his muscular system even by a fatiguing walk; for the sense of fatigue from a long walk is speedily removed by a good meal, with a small proportion of wine.

CHAP. IV.

COSTIVENESS OF ELDERLY PEOPLE, AND FROM DEBILITY.

THE late Dr. Campbell, of Hereford, often prescribed a lavement of the infusion of horse-radish, to be administered about twice a week, with the view of stimulating the rectum, and of softening the fæces collected in it and in the colon, in cases of costiveness from debility; and in general it succeeded in enabling the patient to expel the collected mass with great facility. He was also in the habit of ordering a wine-glassful of the following mixture, to be taken three times a day:

Take of mustard seed, bruised, one ounce; horse-radish, bruised, one ounce;

Mix, and infuse in a pint of barley water, in a close vessel, for three hours; then pour off the liquid, and add to it,

The compound tincture of bark, one ounce; compound spirit of ammonia, three drachms. —Mix.

Dr. Blount, physician to the Hereford Infirmary, and the late Dr. Cheston, of Gloucester, frequently

prescribed the following composition, in cases of costiveness from debility, both in elderly and young subjects:

> Take of extract of guaiac wood, half a drachm; hepatic aloes, one drachm; subcarbonate of iron, one scruple;

Mix, and divide into thirty pills; from two to three to be taken twice or thrice a day, with a glass of camomile tea.

The compound decoction of aloes, in the dose of a wine-glassful every morning, was also a favourite remedy with the late Dr. Cheston, in this species of costiveness.

The cause being principally seated in the lower portion of the intestinal canal, an aperient medicine taken by the mouth seldom succeeds, without the co-operation of a stimulating clyster. (See Nos. III., VII., and XV., in the Appendix, on *Clysters.*) If the rectum be in a state of morbid irritation, or the patient be subject to piles, warm water may be injected in lieu of an infusion of horse-radish, and the alcaline extract of jalap substituted for aloes, in the pills. The compound tincture of senna, of the Edinburgh Pharmacopœia, in the dose of from one to three table-spoonsful once a day, is an excellent remedy for this species of costiveness.

In elderly people, congestion of the vessels of the head, by compressing the brain, is a common cause of costiveness: in such case an aromatic

purgative, as the following, will prove beneficial, by promoting the circulation in the viscera, &c. of the abdomen.

> Take of the aromatic pill, compound colocynth pill, of each one drachm.—Mix, and divide into twenty-four pills, of which two or three may be taken every or every other day, so as to produce one copious evacuation daily.

If the stomach should not properly perform its office when the intestines are sufficiently relieved every day, a medicine to invigorate it will be necessary. The stomach being generally in a nervous state, the common stomachic medicines, as gentian, cascarilla, decoction, infusion, and the compound tincture of Peruvian bark, often oppress it, and frequently excite nausea, or occasion unpleasant eructations, especially the compound commonly termed Huxham's Tincture of Bark. In an early number of the Gazette of Health, we recommended a solution of the sulphate of bark in the tincture of the cannella alba, as a remedy for indigestion from debility; but a continued use of it we afterwards found to disorder the stomach of debilitated subjects, especially when advanced in years. Invalids suffering from indigestion from direct debility, require a light aromatic stomachic. After numerous experiments, we formed a volatile tincture, which we have uniformly found not only to act pleasantly on the stomach of debilitated invalids, but to invigorate the system, and bring

the whole vital powers into action. At the same *time, by promoting* the secretion of urine, it has, *in many elderly subjects, prevented dropsy. It is* made by dissolving the volatile extract of bark, first introduced into the practice of this country by the late Drs. Reynolds and Carmichael Smyth, under the name of Essential Salt of Bark, in the distilled spirit of the buchu leaves and Peruvian balsam with ammonia. The volatile extract of bark is the lightest and best preparation of the Peruvian bark, containing in a concentrated state all its peculiar medicinal virtues, and dissolved in the compound; and the volatile spirit in which it is dissolved is unquestionably a most valuable auxiliary, extending its beneficial operation beyond the stomach, and, by invigorating the liver, kidneys, and other viscera, greatly promotes the health of the whole body. The dose of this tincture, which, to distinguish it from the Huxham's tincture, and the simple volatile tincture of bark, we have termed the Volatile Aromatic Tincture of Bark, is from two to three tea-spoonsful two or three times a day in a wine-glassful of water.

The galvanic fluid passed in the course of the spinal marrow, and in different directions through the abdomen, we have known to succeed in several instances of obstinate costiveness from debility; and Mr. La Beaume, in his dissertation on this active agent in the cure of indigestion from debility, notices many cases in which it restored the stomach and intestines to a healthy condition, in

which they afterward continued for many years, without the aid of medicine.

For instructions as to diet, See Costiveness attendant on Indigestion.

We shall conclude this Chapter with an extract from an article on the climacteric period of life, which we have given in the 118th Number of the Monthly Gazette of Health.

"Of all the changes that take place in advanced life, those of increase of blood in the veins, and diminution in the arteries, tend most to oppress the vital powers, and to favour local disease. Organic disease, either in the lungs, liver, spleen, coats of the stomach, intestines, bladder, &c., is, in advanced life, frequently the consequence of venous congestion and diminished arterial action. Apoplexy and dropsy, which terminate the lives of nearly one half of the aged people of this country, are also its common consequences. By compressing the brain, not only the heart, but the lungs, stomach, &c. are enfeebled. Hence, the state of the system of blood-vessels in elderly persons, especially the venous portion, merits particular attention. Some physicians, from the general venous congestion that prevails in advanced life, suppose nearly all the diseases of age to be of a plethoric nature, and accordingly recommend bleeding, purging, and a spare diet, as if the digestive organs, &c. performed their office better during that period of debility, than during manhood or youth. Abstraction of blood from a vein,

as we have already stated, and also a warm active purgative, generally afford great relief; but if blood be taken from the arterial system, as by cupping or leeching, and a saline aperient be employed, as Glauber's, the Epsom, or the Cheltenham salt, the general debility will be increased; and if the vital powers be so reduced as to be incapable of a re-action, death will very likely ensue. When the vital powers are oppressed by general venous fulness, a very slight reduction of them will occasion death. Life indeed in old people is sometimes kept up by irritation, or morbid action, in some part of the body; and in such cases a sedative medicine, as the meadow-saffron, or even a cold application to the part affected, has been immediately followed by death. In our 76th Number, page 109, we have noticed a case of gout, in which a quack medicine, the basis of which was meadow-saffron, destroyed life in a few minutes; and similar instances, from the injudicious exhibition of this remedy to allay gouty irritation, or local inflammatory excitement, in elderly subjects, are detailed in our two first series. A low diet, or a diet free from stimulants, also tends to increase the venous fulness, by diminishing the propelling power of the heart. Another cause of venous congestion, is ossification of the large arteries, to which elderly asthmatics are particularly subject. To no state of body is the system of Abernethy more applicable, than to that which takes place after manhood, or the debility of age;

viz. the blue pill, a stomachic, and a warm aperient. The blue pill should be administered sparingly, so as not to affect the gums, or produce slight fever. The object is to invigorate the absorbent system and the small arteries, and thereby prevent accumulation of deposit in the viscera, &c., and also congestion of the vessels. With this view, four grains administered every night for the first week in every month, will be sufficient. We have been in the habit of prescribing it with the cordial confection, for the purpose of reconciling it to the stomach, and preventing its disturbing the intestines—as the following:

"Take of blue pill, twenty-eight grains; cordial confection, two scruples.—Mix, and divide into fourteen pills. Two to be taken every night at bed-time.

"If the intestines be sluggish, or the bowels are not sufficiently relieved every day, the following pills may be substituted for the foregoing composition:

"Take of blue pill, extract of rhubarb, of each half a drachm; oil of caraway seeds, ten drops; rhubarb, a sufficient quantity to form a mass.—Mix. To be divided into fourteen pills, two of which may be taken every night.

"As an aperient, in case of the bowels not being sufficiently relieved, the following draught may

be taken either before, or two hours after breakfast, as most agreeable to the patient:

"Take of tincture of rhubarb, compound tincture of senna, from two to three drachms; simple peppermint water, one ounce.—Mix.

"If the patient should prefer pills, the following may be substituted for the above draught:

"Take of aromatic pill, five grains; alcaline extract of jalap, ten ditto.—Mix, and divide into three pills—(for one dose).

"If the patient be subject to irritation about the rectum, bladder, or urethra, a less stimulating purgative should be employed, as the following:

"Take of alcaline extract of jalap, alcaline extract of rhubarb, of each seven grains; oil of caraway seeds, two drops.—Mix, and divide into three pills—(for one dose).

"The saline purgatives, as the Epsom salt, Cheltenham salt, Glauber's salt, Seidlitz powders, &c., by reducing the circulation in the abdominal viscera, and by increasing the accumulation of venous blood in the head, never fail to increase the cause of the general debility; and in elderly subjects, an alarming degree of debility, and death itself, have frequently followed a dose of a saline purgative.

"The object of a purgative in cases of debility, is not only to keep up the peristaltic motion of

the intestines, but to increase the action of the arteries of all the viscera, in order to prevent venous congestion. In cases of debility of old age, the necessity of supporting or invigorating the stomach, must appear obvious to every person acquainted with its important office in the animal economy, especially when the system is in a state of increasing emaciation. In advanced life, the sedative bitters, and copious draughts of a mild decoction, as that of sarsaparilla, by relaxing the stomach, prove very injurious. The object is not only to stimulate the stomach, but also to constringe it, or rather increase its tonicity. With this view, a wine-glassful of the following mixture may be taken twice a day:

"(1.)—Take of infusion of buchu leaves, six ounces; compound tincture of rhatany root, one ounce; compound spirit of ammonia, three drachms.—Mix.

"If the patient should be nervous and restless at night, or of a gouty habit, the following mixture may be substituted for the above:

"(2.)—Take of compound tincture of rhatany, or volatile aromatic tincture of bark, one ounce; compound spirit of juniper, one ounce; camphorated mixture, seven ounces. —Mix.

"Or, if the bowels should be disposed to be costive, three table-spoonsful of the following mixture may be taken three times a day:

"(3.)—*Take of infusion of rhubarb, six ounces;* volatile aromatic tincture of bark, one ounce; tincture of buchu leaves, or compound spirit of juniper, one ounce.—Mix.

"If, on the contrary, the bowels be irritable, or too open, the following composition may be substituted for the preceding:

"(4.)—Take of compound tincture of rhatany, one ounce; lime water, six ounces; tincture of buchu leaves, one ounce.—Mix.

"Or, if he be affected with chronic purging or dysentery,

"(5.)—Take of cordial confection, two drachms; gum-arabic powder, three drachms; compound tincture of rhatany root, one ounce; infusion of logwood, seven ounces.—Mix. three table-spoonsful to be taken three or four times a day.

"If this should not succeed in sufficiently restraining the looseness, two or three drachms of the tincture of gum kino may be added to it.

"If the patient be asthmatic, or affected with chronic cough, or has suffered from asthma, or constitutional cough, three table-spoonsful of the following mixture may be taken three times a day:

"(6.)—Take of gum ammoniac, one drachm; camphor, twenty grains; gum-arabic, one

drachm; infusion of cascarilla, seven ounces; ethereal solution of iron, two drachms; tincture of buchu leaves, one ounce.—Mix."

After the camphor is reduced to powder by rubbing it in a mortar with a few drops of spirit of wine, add the gums in powder, and when well blended, add by degrees the infusion, continuing the tritature till a milk-like mixture be formed, then strain it off, and add the tincture and solution.

If the extremities be cold, the legs swell, or the patient be disposed to general dropsy, half an ounce of the oxymel of squills may be substituted for the gum ammoniac in the above mixture.

The preceding mixtures, except No. 5, are tonic *and* diuretic; that is, they will strengthen the stomach, and promote the secretion of urine. In advanced age, it is of great importance to keep up a proper action in the kidneys, because the secretion of urine being from the blood, it of course tends to keep down plenitude; and from the social sympathy existing between the kidneys and absorbent system, the latter is thereby called into action, so as to remove any effusion of serum that may have taken place in the chest, abdomen, &c.; and when it is not in sufficient quantity, the blood becomes overcharged with serum, the consequence of which is, œdematous or dropsical swellings. The secretion being excrementitious, *i. e.* consisting chiefly of the impurities of the blood, it is of great importance that the kidneys should properly

perform their office, in order to promote the *healthy* nourishment of the body. If the secretion of urine should be excessive and morbid in quality, the use of a warm diuretic medicine, as the infusion or tincture of the buchu leaves, will correct the latter and diminish the former; the excess being, like the discharge termed the whites or gleet, the consequence of *debility* or *relaxation*, and not of increased action. The buchu leaves will, in fact, counteract the morbid action of the kidneys, by exciting a healthy one, and the urine will in consequence become healthy. If the patient be subject to paroxysms of pain or cramp in the stomach, and if a warm stomachic medicine, or any stimulating article taken into the stomach, produce pain, or a painful sensation of heat resembling heartburn; or if he experience *acute* pain in the stomach, after dinner, with a sense of constriction, nausea, vomiting of slime, &c., a stomachic, nearly free from a stimulant, should be employed, as the following mixture:

> Take of alcaline tincture of fumitory, six drachms; alcaline liquor of iron, two drachms; camphorated almond emulsion, six ounces.—Mix.

Three table-spoonsful to be taken three times a day. If this mixture should not allay the pain, a mild sedative may be added, the influence of which is not likely to extend beyond the stomach, or to act injuriously on the body; as the extract of

henbane (three grains to each dose), or the extract of hemlock (two grains to each dose.)

If the rectum be relaxed, so as to protrude during a motion,—or if there be a want of power to expel the fæces, from debility of the sphincter muscle,—the tonic clyster, No. V., the exciting clyster, No. VII., and the tonic nutrient clyster, No. XV., in the Appendix, may be occasionally employed.

CHAP. V.

COSTIVENESS OF FEMALES AT THE AGE OF PUBERTY; OR DURING THE RETENTION OF UTERINE SECRETION.

THE non-performance of the periodical office of the uterus, at the period of life when the secretion is necessary for health, arises from the same cause as costiveness, viz. sluggishness; but if the costiveness had been obviated by exercise, and the use of an aperient diet or medicine, as recommended for constitutional constipation, page 14, a proper circulation of blood and degree of nervous energy would have been kept up throughout the abdominal viscera, that the uterus would probably have duly performed its periodical duty, when the state of sympathies and other changes were established, to render the secretion necessary for the preservation of health. In this country the uterus commences its periodical secretion from the age of fourteen to eighteen years, but in tropical climates it is common for it to take place at the age of ten; —and we have often met with instances in this

country of its occurring about the same period; but such cases are, for the most part, the consequences of a plethoric state of the viscera of the abdomen, and are unattended with the appearances of puberty and maturity of mind, which characterise females at the same age in tropical climates: it is indeed more a symptom of a disordered uterus than of health, and often ceases after regularly recurring for twelve months; and the female, instead of suffering from its cessation, actually improves in her general health; and when she has arrived to puberty, a proper secretion of the uterus will take place, which will permanently establish it. The period of puberty in females varying from the age of fourteen to eighteen, and in some to twenty-one, the suspension of the uterine secretion, even at the age of twenty-two or twenty-four, is not to be considered a case of *morbid* retention, unless the constitution evidently suffers from a want of it. If a female, at the age of from fifteen to twenty-two years, with appearances of maturity of body and mind, becomes affected with irregular circulation of the blood, sometimes taking place in excess to the head, occasioning head-ache, confusion of mind, depression of spirits, loss of appetite, &c.,—or to the lungs, &c., producing difficulty of breathing, cough, palpitation of the heart,—there can be no doubt that the general health is suffering from the uterus not performing its monthly office, and, if the bowels be in a costive state, that the retention arises from a

want of a proper determination of blood to it; and if means be not adopted to invigorate the nerves of the abdominal viscera, so as to promote the circulation through them, and direct it to the uterus, irreparable organic mischief will probably take place either in the chest or brain, a very common sequel in scrofulous subjects.

The digestive organs in such cases being generally disordered, and the appetite often morbid, it is always proper to administer an aperient in conjunction with a stomachic medicine, although the lungs may be in a state of irritation approximating inflammatory excitement; and the object of prescribing an aperient not being only to increase the peristaltic motion of the intestines, but to promote the circulation in the viscera, a stimulating one should be employed, such as the extract of aloes. The following composition we have found most beneficial:

> Take of extract of fumitory, extract of aloes, (socotrine) of each one drachm; subcarbonate of iron, subcarbonate of soda, dried, of each a scruple; essential oil of savine, twenty drops.—Mix well together, and divide into forty pills.

One, two, or three to be taken two or three times a day, (with a wine-glassful of infusion of buchu leaves,*) so as to produce one alvine evacuation

* The infusion of buchu leaves, by stimulating the kidneys, will promote the objects of the pills.

daily. If the bowels have been obstinately costive, it will be advisable to empty them by an active dose of the cathartic extract, (fifteen grains in three pills,) and a purgative clyster of infusion of senna (if necessary); after which the above stomachic aperient pills will probably keep them in a regular state. This composition never fails to improve the general health, if the lungs and brain have not sustained serious mischief; and, notwithstanding some of the ingredients are stimulating, it generally allays the morbid irritation of the lungs and brain, which, in the opinion of some routine legitimate physicians, contraindicates the use of such articles. By some ancient authors the leaves of savine (*juniperus sabina* of Linnæus) are highly extolled as an uterine deobstruent; and throughout the Continent, savine is a popular remedy both for retention and suppression of the uterine secretion. Dr. Uwins recommends the powdered leaves to be administered in conjunction with a "warm stimulating purgative," as the following pills:—

> Take of the pill of aloes and myrrh, compound extract of bitter apple, powdered leaves of savine, of each two scruples.—Mix; and after forming a mass with mucilage of gum-arabic, divide it into thirty pills, of which three may be taken night and morning.

The Doctor adds, after the bowels have been well acted upon, and the stomach is able to bear it, administer steel wine, as a drachm or more, two

or three times a day, with peppermint or penny-royal water. The dose of three of the foregoing pills twice a day is much too large to continue for many days. We have known a wine-glassful of an infusion of savine, taken twice a day for a fortnight, succeed in several obstinate cases of retention, in languid constitutions, to produce the uterine secretion; but, being a powerful stimulant, it should be administered with great caution in cases attended with plethora or febrile excitement. If after improving the general health, and keeping up a regular state of the bowels by the pills, the uterus should remain indolent, it will be proper to have recourse to a medicine which will act more immediately on it. With this view, four grains of blue pill may be administered every other night for a fortnight, which very rarely fail to produce the desired effect in the course of a month. If, however, the secretion should not take place in the course of a fortnight after the blue pills are discontinued, the uterus may be stimulated once a day, by passing through its region a gentle electric shock.*

In a late number of the Gazette of Health, we

* A physician of Edinburgh, whose name we have forgotten, sometime since recommended a tourniquet to be applied to each femoral artery during the use of this remedy, for the purpose of increasing the circulation in the viscera of the pelvis; and in obstinate cases of retention, the practice is very likely to succeed. Dry cupping of the thighs and legs, in some instances, has proved a powerful auxiliary.

noticed a topical remedy (an injection of spirit of hartshorn in milk;) which had been very successfully employed in France, by M. Lavagna. This remedy we have known to succeed in a few cases of long standing, but in two cases it excited a considerable degree of inflammation, which extended to the rectum and bladder. Dr. Chesholm, an eminent physician of Canterbury, has employed this remedy (twenty drops of the spirit in three table-spoonsful of tepid milk) in several obstinate cases of retention, and in *every instance*, he says, with "invariable success." From the peculiar texture of the cervix uteri, and of the vagina, so powerful a stimulus should be employed with great caution; for if the parts should be too much stimulated, very serious structural mischief might ensue. The remedy is in other respects, which we need not notice, so very objectionable, that few practitioners would resort to it, unless it be absolutely necessary to save life, or to produce a diversion in favour of a disease in the lungs, far advanced towards an incurable stage. If, notwithstanding the general health is established by the foregoing means, the uterus does not perform its periodical office, it will be proper to imitate nature, by taking four or five ounces of blood from a vein in the foot, every five weeks, till the secretion takes place. The use of the warm-bath once or twice a week, the warm foot-bath, or hip-bath, three times a week, friction over the bowels, exercise (as dancing, skipping, riding on horseback,

&c.) are powerful auxiliaries to medicine in promoting the uterine secretion. If the stomachic aperient pills should not operate sufficiently on the bowels, a pint of water, with a table-spoonful of common salt, heated to about 100 degrees (Farh.) may be injected into the rectum once or twice a day. This remedy will not only prove beneficial in promoting the aperient effects of the day pills, but also, by stimulating the rectum, and acting as a fomentation to the uterus, will operate powerfully in bringing on the secretion. If the blue pill, recommended above, should, with the day pills, produce more than one or two evacuations daily, the dose of the latter should be decreased.

If the chest be free from disease, a gently stimulating and moderately nutritious diet will be proper. Wine and spirituous liquors should be avoided. In case the irritation should run high in the chest, (*i. e.* attended with acute pains, or what are termed stitches, slight fever, dry short cough, frequent shiverings, &c.) attention should be directed more to the state of the lungs, than to that of the uterus; and no active or stimulating medicine should be exhibited by the mouth to bring on the uterine secretion, till the morbid irritation, or inflammatory excitement of the chest, be removed by blistering, leeching, mild aperient and diaphoretic medicines.

Since writing the preceding article, Dr. Miller, an eminent German physician, has informed us that he has administered the tincture of iodine,

in the dose of twenty-five drops, twice a day, in a wine-glassful of infusion of camomile flowers, in cases of retention of the uterine secretion in scrofulous subjects, with great success. The effects of this article in similar cases, we have noticed in a late number of the Gazette of Health. It should not be administered till the general health has been improved by the aperient stomachic pills.

The saturated tincture of the ergot of rye has also been successfully administered in this country, in the dose of from twenty to forty drops, twice a day in a small wine-glassful of a weak infusion of savine, in cases of retention and of suppression of the menses.

CHAP. VI.

COSTIVENESS OF SCROFULOUS SUBJECTS.

By all medical writers, scrofula is termed a disease of debility. Cullen, in his Nosology, thus describes it: — "Tumefaction of the conglobate glands, chiefly of the neck, swelling of the upper lip and soft parts of the nose, florid cheeks, soft skin, and enlarged abdomen." Dr. Good defines it to be "a disease of debility, operating by a *specific* influence on the *circulating*, and particularly on the lymphatic system;" but whether this influence is, as is supposed, "the result of a *specific* matter," the Doctor admits, is not clear to him. The prevalent idea, that the specific matter is from the first a peculiar irritant or an acrimony, he positively asserts to be a mistake; for, says he, "the disease is accompanied *throughout* with *diminished* instead of *increased* irritability;" and hence, the Doctor concludes, "the power producing it must be more of a *sedative* nature than of an *exciting* or *actuating* quality; and it is in this diminution of irritability," proceeds the Doctor, "that scrofula differs from *all* other diseases of weakness, since

the *debility* and *irritability* generally augment in like proportion, and maintain an equal march."

In refutation of this opinion, we need only notice a fact, well known to the surgeons of provincial hospitals, that scrofulous affection more frequently occurs in robust than in debilitated subjects, whose muscular system shews no deficiency of irritability, and whose sanguiferous system is in a plethoric state, and evinces increased strength *. Every surgeon of observation knows that the progress of scrofulous tumefaction of glands is increased by a *stimulating* cataplasm; and, if it arose from debility, surely a local stimulant would have a contrary effect. In cases

* With respect to the assertion so frequently made by routine physicians, that *debility* and *irritability* generally augment in like proportion, and maintain an equal march, *i. e.* that irritability increases with debility, we really discover nothing in it but jargon, to which the ignorant must have recourse in order to cover their ignorance, or to prevent *inquisitive* enquiries. Irritability is a power residing in muscles; and if it be diminished in a muscle, its power will of course be diminished. Is it not then ridiculous to say, that the irritability augments in proportion as the debility of the body increases? When a muscle exhibits an increase of power, as in cases of acute and chronic spasms, it is attributed to increased irritability, and this increase routine practitioners ascribe to *debility!!* The fact is, without such jargon or obscurity of technicalities, the *fee-trade* could not be supported. It is common for the mind and nervous system to become too susceptible of impressions, or too excitable as the strength of the body declines; but the *irritability*, a property inherent in muscles, decreases in proportion as the body becomes weak.

of white swelling, scrofulous affections of the periosteum and of a viscus, stimulants evidently prove injurious. The idea which generally obtains among routine practitioners, that scrofula is a disease of debility, has assuredly led to a maltreatment of the disease; and, from long observation, we have no hesitation in saying, that, by the use of stimulating or tonic medicines, and a stimulating generous diet, many thousands have been hastened to their graves in this country, and to them we ascribe the prevalence of pulmonary consumption. Dr. Lambe, a physician of great experience and observation, who has paid particular attention to scrofula, states that he has found nothing more efficacious in arresting the progress of scrofula, and in preserving the scrofulous habit in a healthy state, or free from local mischief, than a vegetable diet; and he condemns the use of any kind of stimulants.

Dr. Good observes, that "this disease of the lymphatic system often extends itself to the eyes, the mucous glands of the nose, the tonsils, and even the joints and bones; as gout, that ordinarily shews itself at first in the *small* joints, and rheumatism, in the *large* joints, spread not unfrequently to the membranes and the muscles." One would suppose, by this remark, that the Doctor was not aware that the lymphatic system pervades the whole body. The Doctor, regarding the disease as one of debility, directs his readers to adopt a *tonic* and *stimulating* treatment. He

admits that the alcaline remedies have proved beneficial; but not, as some *chemical* theorists have imagined, by *neutralizing* acidity in the stomach, or acrimony that has generated in the system, although he does not deny the existence of the latter, but from its *stimulating* effects! "They are," says he, "*gentle stimulants, admirably* adapted to the *debilitated* and *indolent* condition of the *vascular* system; and hence," observes the Doctor, "in whatever form they are given, they have a *chance* of doing good." The late Dr. Baillie stated, that he uniformly found alcaline medicine to *decrease the action of the vascular system,* and consequently to *reduce* the *vital powers.* The potass, and subcarbonate of potass, are very commonly prescribed in this country and in France, as a sedative in cases of inflammation of membranes, especially of the lining of the windpipe, palate, urethra, &c. When such *great* authorities differ, who can decide which is right? We confess we have never witnessed any beneficial effects from alcaline medicines in scrofula, when an acid did not prevail in the stomach, or when uric acid did not predominate in the urine, or when the sensible perspiration did not redden litmus paper. "It is to this principle," (alcaline) says Dr. Good, "that we are *perhaps* to resolve *all* the advantage that has been stated by different writers, and in the different ages of the world, to have resulted from the use of burnt sponge, burnt cuttle-fish, burnt

shells of all kinds, burnt hartshorn, and burnt secundines." The Doctor seems to be as great in chemistry as he is in anatomy. It is the first time we have heard of burnt hartshorn, burnt cuttle-fish, and burnt secundines being alcalines. The true burnt hartshorn and calcined cuttle-fish bone is chiefly phosphate of lime, and, if not adulterated with chalk, will scarcely effervesce on the addition of an acid. "In our days," says Dr. Good, "*all* these remedies have deservedly yielded to the *carbonate* of soda, or subcarbonate of ammonia, which," adds the Doctor, "in a more *elegant* and *concentrated* form, offer *whatever* virtues may be contained in the *old* medicines."!! Now, if the same effects are produced by the *carbonate* of soda, how can he attribute its efficacy to the stimulating influence of the *alcali* on the vascular system? The carbonate of soda is *not* an alcali, the soda being neutralized by carbonic acid. The Doctor may say, as some *legitimate* routine physicians have said, how can this be the case when the carbonate is capable of neutralizing acidity in the stomach, and of curing heartburn? When the carbonate of soda or carbonate of potass meets with an acid in the stomach, for which the alcaline base has a greater attraction than for the carbonic acid, it of course unites with it, and the carbonic acid is disengaged in a gaseous form. In *genuine carbonate* of soda, the alcali is as much neutralized by the carbonic acid, as by the sulphuric acid in Glauber's salt, or

the muriatic acid in common salt; and no person acquainted with chemistry would term the carbonate of soda, or the carbonate of potass, an *alcali*.

Lime water and the muriate of barites, the latter of which Dr. Adam Crawford, about thirty years since, introduced as a SPECIFIC remedy for scrofula, Dr. Good observes, "can only prove beneficial from the *general principle* of their being *stimulants*, and especially of the lymphatic system; and the same," says he, "may be observed of parsley, sarsaparilla, mesereon, balsam of sulphur, calamus aromaticus, and horse-radish, ALL of which have had their votaries in their days." The balsam of sulphur unquestionably diminishes irritability; and as to the decoction of sarsaparilla, if it ever did produce any salutary effect, we should attribute it more to its *quieting* or *tranquillizing* effects as a *diluent*, than any *stimulating* quality it may possess. Dr. Cullen found the coltsfoot more beneficial in correcting the scrofulous habit than any other medicine, and it imparts to boiling water scarcely any thing but a mucilage, similar to that of sarsaparilla. We have given the marshmallow-root a preference to sarsaparilla, because it affords a greater quantity of mucilage; and we have very frequently witnessed its beneficial effects in scrofulous affections, not by *stimulating* the vascular or lymphatic system, but by allaying irritation, and probably by promoting the secretion of urine.

It appears to us that scrofula is not produced

by any specific poison or acrimony, but that it is dependant only on original delicate structure and irritability of the whole lymphatic system: and if this idea be correct, the object of practice is not to stimulate the body, or any particular system of it, but to keep down irritation in the lymphatic system, and to strengthen it by gentle tonics; and this treatment we have uniformly found beneficial.

Scrofula, like every other disease, has its stages. In the first stage it is decidedly a disease of increased action. The local affections are inflammatory, and they have a peculiar character, probably in consequence of being confined to the lymphatic glands and vessels. After suppuration has taken place, or the disease has arrived to its last stage, the circulation generally becomes languid, the skin pale, and the stomach of course partakes of the general debility of the body; hence powerful and indeed *stimulating* tonics are often necessary. The object of this article is not to lay down directions for the treatment of the different stages of scrofula, but to give instructions for the management of the bowels, &c. of scrofulous subjects, so as to secure the lungs, joints, glands, &c. against mischief; or, in other words, to keep the lymphatic system in a quiet state, and to strengthen it, so as to subdue morbid excitement, or the predisposition in it to inflammatory action.

Costiveness is a complaint to which scrofulous subjects are very liable, and being a general precursor of disorder of the lymphatic system, or of

structural mischief either in the lungs, mesenteric glands, joints, or the glands of the neck, it may be considered so far an exciting cause of local action, that, had it been obviated, it would not have come into action. An occasional use of an aperient medicine is not only necessary as a *preventive* of local mischief in a scrofulous subject, but even when it has come into action it is no less important to keep up a regular alvine discharge, in order to give the topical and constitutional remedies a fair trial, which are supposed to act specifically on the disease; and it is probably to a neglect of this essential part of treatment, that remedies, which have been highly extolled by some surgeons as correctors of scrofula, have failed in the practice of others. Iodine has, within the last two years, been much recommended by several respectable surgeons of France, Germany, and England; and from the numerous cases of scrofula which have been published in the Gazette of Health and other journals, there can be no doubt of its possessing an antiscrofulous property; but it has been observed, that if the bowels be not kept in a proper state, the article is very apt to disorder the stomach and head, and even to excite slight fever, and considerable irritation in the salivary glands; and these effects have induced some physicians, from ignorance of the cause, to abandon its use*.

* We have given iodine an extensive trial, in a variety of scrofulous affections, and in every instance it has evinced a

The best aperient medicine for obviating costiveness in scrofulous subjects is jalap, because it does not disturb either the process of chymification in the stomach, nor of chylification in the duodenum, nor prevent absorption of the chyle for the due nourishment of the body, by hurrying it through the small intestines; its peculiar aperient effects arising from its action on the internal membrane of the colon, by increasing its fæcal secretion. The alcaline extract is the best preparation of the root, which may be given in conjunction with the dried carbonate of soda and an aromatic, in the following proportions:

Take of the alcaline extract of jalap, 1 drachm; essential oil of caraway seeds, 10 drops; dried subcarbonate of soda, 1 scruple. Mix, and

power of correcting the scrofulous habit, and of curing local affections through the medium of the stomach. In some patients it seems to have completely corrected the constitution, that they have not, for many years, experienced any scrofulous affection, although, previously to its use, they had been subject to swelling of glands of the neck, &c. every spring. In others, in whom it had not so happy an effect, it has never failed to check the progress of glandular swelling, and, in a few weeks, to reduce their size. We have always paid attention to the regulation of the bowels, and have been very particular in employing the true German iodine, prepared from sponge, which is more pure than that made in Scotland. Since writing the foregoing remarks we find Dr. Manson, an eminent physician of Nottingham, has published several bad cases of scrofula, in which iodine prescribed by him succeeded in subduing the disease. Some of the cases are published in the 120th number of the Gazette of Health.

divide into twenty pills, of which two or three may be taken every night or morning, so as to produce one *proper* alvine evacuation daily.

As a constitutional remedy, we know of none worthy a trial except iodine. The best form for exhibiting this article is the tincture, of which from twenty to thirty drops may be taken two or three times a day, in a large wine-glass or small tea-cupful of the decoction of marshmallow-root or coltsfoot. If the powers of the system have decreased, the Peruvian bark may be boiled with the marshmallow-root or coltsfoot, in the proportion of half an ounce to a pint of the strained decoction. The late Sir Walter Farquhar, and the late Dr. Cheston, of Gloucester, entertained a very high opinion of the antiscrofulous property of the Malvern water; and the late Dr. Baillie, in the Memorandums which he left unpublished, states, that he found this water to prove very beneficial in scrofula.

Mercury in small doses (as the blue pill in the quantity of two grains, with two grains of the extract of hemlock, taken at bed time for the course of a week or ten days), generally proves very beneficial in every stage of scrofula; but when it irritates the gums, or excites mercurial fever, the scrofulous affection generally advances rapidly. With the late Mr. Cam, of Hereford, and the late Dr. Cheston, of Gloucester, a solution of the oxymuriate of mercury was a very favourite

medicine; and in many bad cases of scrofulous suppurations, and scrofulous affections of bones, we have witnessed its good effects. Their modes of giving this medicine are detailed in a new publication, entitled the "New Medico-Chirurgical Pharmacopœia."

As a topical application to neglected scrofulous tumours, either of glands or joints, the following embrocation may be used twice a day, either by rubbing the part gently with it, by means of some fine soft flannel, or by applying flannel moistened with it over the part.

Take of iodine, 20 grains; rectified oil of amber, 4 drachms; rectified spirits, 2 ounces.—Mix.

On adding the rectified oil of amber to the iodine, a combustion takes place; and when this is finished, the spirit should be added.

The following ointment we have found very efficacious in dispersing scrofulous tumours, during the use of the tincture of iodine, &c.

Take of hydriodate of potass, 1 drachm; elder flower ointment *, 6 drachms.—Mix.

As auxiliaries to medicine and diet, the most powerful are sea-air and sea-bathing. The diet should be adapted to the state of the general health, and particularly to that of the sanguiferous system.

* The ointment of elder flowers is preferable to the spermaceti ointment, on account of its entering the cuticle on friction with much more facility.

We shall conclude this chapter with an extract from Mr. Abernethy's work on the constitutional treatment of local diseases.

"I have remarked, in many instances, that diseases of the absorbent glands, such as are usually denominated scrofulous, occurring in adults, have apparently originated from the disorder of the digestive organs. In several cases the local disease was of long duration, and had become worse rather than better under various plans of medical treatment; yet it amended regularly, and sometimes even quickly, in proportion as the state of the digestive organs was corrected. I need not detail any cases on this occasion, since every surgeon must know them familiarly. The patients are commonly sent to the sea-side, or into the country, where enlarged glands subside, and those which have suppurated and ulcerated heal; and the local disease recovers in proportion as the health in general is amended.

"There are cases of scrofulous diseases occurring suddenly, and in various parts of the body at the same time, which seem to originate in that state of the constitution which is occasioned by disorder of the digestive organs. I have chiefly observed these cases in children, and they have followed some violent febrile affection. In two cases, which I shall particularly mention, the small-pox was the antecedent disease. I have already stated, that when the health has been considerably disordered by some violent disease,

the digestive organs may become subsequently affected, and that this disorder proves a cause of many secondary diseases."

The two cases to which Mr. Abernethy alludes are so very similar, that it is only necessary to give one to illustrate the great advantages of his simple mode of treatment.

"A child of two years old had the small-pox, from which he did not seem to recover, but, on the contrary, fell into a very bad state of health. The absorbent glands on the right side of the neck became enlarged in succession, so as to form altogether a very considerable tumour, which extended down to the collar-bone. The axillary glands then became affected in the same manner; the swelling was unusually great, and seemed to extend under the pectoral muscle, elevating it, and forming by this means a continuation of tumour with the glands of the neck. These swellings had partially suppurated, and had broken in two places, viz. in the neck, and about the margin of the pectoral muscle: but no relief followed; on the contrary, the mass of disease seemed to be rapidly increasing. The child was bowed forwards, so that the spine was much curved in the loins; the left leg appeared paralytic, and a swelling was perceived in the abdomen, which I could not but ascribe to an enlargement of the external iliac glands. The child was extremely emaciated, his skin felt hot and dry, his tongue was covered with a brown fur, and the stools

were black and highly offensive. As there was no expectation that he could survive this desperate state, those medicines only were prescribed that seemed likely to correct the state of the digestive organs: such as occasional doses of calomel and rhubarb. A strict attention to diet was also recommended. Under this treatment the stools gradually became natural, and the tongue clean. The disease seemed to stop immediately. As the health was restored, the swellings rapidly subsided, and the child became one of the healthiest and stoutest of the family."

In the second case the joints, as well as many glands, were considerably enlarged; the latter so much so, that Mr. Abernethy observes, "had I seen either joint, as a single case of disease, I should have said that it would leave the child a cripple." The same simple treatment also succeeded in the other case. To the last case he has subjoined the following remarks.

"I have heard it remarked by surgeons of great experience, that patients often recover when many scrofulous diseases appear at the same time; although some of them may be so considerable, that they would seem to warrant amputation had they appeared singly. The cases which I have related afford a most clear and satisfactory account of the mode of recovery. General irritation and weakness bring on diseases, to which perhaps a predisposition may exist in several parts of the body: these cease when their exciting cause is removed.

"Of late, indeed, I have been equally surprised and rejoiced to see swellings of the absorbent glands in children readily dispersed by that medical attention to correct errors in the functions of the digestive organs, which I have described. Some of these swellings came on rapidly, and some slowly; but these were so large, and so much inflamed, that if any person had formerly told me they might be dispersed by such measures, I should have thought the assertion an absolute absurdity, from its direct contradiction to my former experience."

The popular remedies, the juice of goose-grass, endiff, coltsfoot, &c., taken during the first or inflammatory stage of scrofula, frequently prove beneficial; but, after the powers of the constitution have been reduced by suppurations, they prove injurious by disordering the stomach. It is worthy of remark, that most of the remedies which have been found beneficial in scrofula, as the subcarbonate of soda, solution of pure potass, foxglove, the Malvern water, infusion of parsley, &c. &c. are diuretic, and that they always prove most efficacious where they promote the secretion of the kidneys. The foul part of the blood being separated by the kidneys, they may have a beneficial effect on the system, by increasing their action. There is so close a sympathy between the kidneys and the whole lymphatic system (the principal seat of scrofula), that diuretic medicines may operate advantageously, by keeping up the important functions of the latter.

CHAP. VII.

COSTIVENESS OF HYSTERICAL SUBJECTS.

The hysterical affection, like scrofula, is attributed by the generality of routine practitioners to debility, and of course, by them, subjected to a stimulating or tonic treatment. It is apparently dependant on a morbid irritability of muscles, and increased sensibility of the nervous system, which occur in robust as well as in debilitated subjects, and it is frequently attended with such an undue determination of blood to the head, or general plethora, as to render copious abstraction of blood necessary to prevent local inflammation. In persons subject to hysterical affections, it is of great importance to keep the brain in a quiet state. The certain consequences of an overloaded state of the intestinal canal, being an increased afflux of blood to the brain, the necessity of obviating costiveness must appear clear. In nervous or hysterical subjects, a paroxysm being generally brought on by irritation in the stomach and intestines, an aperient medicine always proves very beneficial in reducing uterine excitation.

The following composition we have found to act very beneficially, both as an aperient and an anti-irritant:—

Take of alcaline extract of jalap, 1 drachm; extract of henbane, from 15 to 20 grains; oil of caraway seeds, 8 drops.—Mix, and divide into eighteen pills; one, two, or three to be taken at bed time, or twice a day, according to their aperient effects.

If the patient be of a plethoric habit, not only copious purging, but abstraction of blood will be necessary, and also the application of cold water to the forehead for ten or fifteen minutes every morning or twice a day, by means of a napkin, or to the head if the scalp be thinly covered with hair.

If the patient be in a debilitated state, and the digestive organs do not properly perform their office, a stomachic medicine will be necessary; and, as flatulence alone, by distending the intestines, and passing from the stomach into the gullet, is a very common exciting cause of a fit, a powerful carminative should likewise be employed to prevent accumulation of gas in any part of the alimentary canal, as the following composition:

Take of the compound galbanum pill, extract of cascarilla, of each half a drachm; dried subcarbonate of soda, 1 scruple; aromatic

pill,* 1 drachm.—Mix, and divide into thirty pills; two or three to be taken twice a day, with a glass of water.

If the patient should object to this form of medicine, or if pills should excite spasms in the gullet, in consequence of the mechanical irritation, (a common effect in hysterical subjects,) two or three tea-spoonsful of the following drops may be taken two or three times a day, in a wine-glass of water:

Take of aromatic tincture of lupulin, 2 ounces; liquor of potass, 3 drachms; fœtid spirit of ammonia, 4 drachms.—Mix.

The morning or night dose of this mixture may be taken with one, two, three, or four table-spoonsful of the compound decoction of aloes, so as to produce one or two copious alvine evacuations daily.

The following is a copy of the receipt for making this decoction of aloes:

Take of Spanish juice, half an ounce; subcarbonate of potass, half a drachm; socotrine aloes (powdered), 2 scruples; myrrh (powdered), hay saffron, of each half a drachm; water, 1 pint.†

* A composition of aloes, Guaiac gum, and Peruvian balsam.

† This decoction is sold under the name of Beaume de Vie.

To be gently boiled, till reduced to three quarters of a pint, and then the liquor to be strained through fine linen for use.

Dr. Uwins recommends the following aperient stomachic draught to be taken once or twice a day:

Take of the compound decoction of aloes (made as above), half an ounce; infusion of cascarilla, an ounce and a half.—Mix.

This composition is not sufficiently carminative. Some practitioners object to the exhibition of an *aromatic* purgative when the vessels of the head are overloaded; but in such cases, by increasing the circulation in the abdominal viscera, it produces a diversion in favour of the head, and by occasioning the alimentary tube to contract, so as to expel the gas that is collected in them, it removes a great mechanical cause of the accumulation of blood in the vessels of the brain.

When hysteric fits are occasioned by painful menstruation, the alcaline tincture of colchicum, twice or thrice a day, with an aromatic aperient and camphorated julep, according to the state of the bowels, is an excellent remedy, as the following draught:

Take of the ammoniated tincture of colchicum seeds, from 2 to 4 scruples; fœtid spirit of ammonia, 40 drops; compound decoction of

aloes, 1 ounce; or camphorated julep, an ounce and a half.—Mix. To be taken two or three times a day.

If the menstrual secretion be excessive, the decoction of aloes should be omitted, and thirty drops of the compound spirit of sulphuric ether substituted for the fœtid spirit of ammonia. If the bowels should be constipated, the following draught may be administered:

Take of infusion of roses, 1 ounce; sulphate of magnesia, 3 drachms; compound tincture of senna, 3 drachms.—Mix.

If the patient be of a languid habit, the skin pale, and the extremities cold, an ounce of the alcaline tincture of iron may be added to the stomachic drops, and the dose increased to three teaspoonsful two or three times a day.

If the menstrual secretion be suppressed or retained, the treatment recommended for retention of the menses, page 55, *et seq.* will be necessary.

The popular practice of throwing cold water over the head, very frequently terminates a fit; but that of forcing open the hands and violently smacking the palms, and also of applying volatile salts or aromatic vinegar to the nostrils, tends to prolong the paroxysm.

To the above treatment the shower-bath two or three times a day, or sea bathing, will prove a powerful auxiliary. Dr. Hamilton, in his work, entitled "Observations on the Utility and Ad-

ministration of Purgative Medicine in several Diseases," has introduced a few cases of hysterical affections, in which the free exhibition of an opening medicine, without any auxiliary, succeeded in restoring the patients to health. From those cases we have selected the following, to illustrate the advantage of the purgative treatment of this malady :—

"*Royal Infirmary*, 16*th March*, 1825.

"Jean Lawrie, aged 17, is subject to violent involuntary and irregular motions of the trunk and extremities, which generally last from five to ten minutes, and sometimes return several times successively, without any apparent cause. Complains of severe headach during intervals, and flying pains in her loins, breast, and extremities. Pulse 104 and weak, face flushed, skin hot, alternating with a sense of cold, belly rather bound: the uterine secretion, which had been suppressed for upwards of four months, had returned about eight days.

"Was seized yesterday, while walking, with pains in the breast and back, faintness, and difficulty of respiration. These continued for about half an hour, and were succeeded by a fit, as above described. Has been subject to headach, giddiness, and stomach complaints for about three years. A bolus of jalap was administered, and directions given for the exhibition of the common purging clyster if it did not operate.

" 17th March.—One costive, but, in other respects, natural stool; tongue clean, pulse calm, headach continues, flushings of face, three attacks of spasmodic affection, as described, but in a slight degree, since admission; has passed an easy night.

" Two pills of aloes and colocynth were ordered to be given every fourth hour, till they operated on the bowels.

" 18th.—Twelve pills taken, no stools procured, headach is relieved; one fit of short duration.

" Ordered a purging clyster to be administered, and a bolus of jalap and calomel to be given the following morning.

" 19th.—Several copious dark and fœtid stools after the injection, none since the bolus of the morning, headach is relieved, no return of paroxysm.

" Ordered the clyster to be repeated.

" 20th.—Two slight fits; several stools. The bolus of jalap, &c. to be repeated.

" 21st.—No recurrence of fits, pain under the sternum, increased by the recumbent posture, continues; headach gone, the bowels open, pulse calm.

" Ordered a blister to be applied over the breastbone.

" 23d.—Blister has risen well, and pain relieved; no stools, no recurrence of fits.

" Ordered the bolus of jalap, &c. to be repeated.

"25th.—The bowels have been well opened, and the patient free from complaint.

"Ordered one or two pills of aloes and gamboge to be taken occasionally at bed time.

"Dismissed cured."

CHAP. VIII.

COSTIVENESS OF GOUTY SUBJECTS.

THE alimentary canal of gouty subjects being very irritable, a gouty invalid is seldom affected with constipation; but when the intestines are loaded with fæces, or when the process of fæcification is slow, the general health, and particularly the head and nervous system, are always much disturbed. It is not only a frequent precursor of a paroxysm, but the cause of irregular, or atonic, gouty pains in the bowels and extremities; and is generally attended with a disordered condition of the stomach—determination of blood to the head in plethoric subjects---and most distressing lowness of spirits. A mild aperient medicine is frequently prescribed by some practitioners, and often resorted to, by gouty subjects, under the idea that gout is a disease of debility; and although it succeeds in obviating costiveness, or in producing two or three extra evacuations daily, by nauseating the stomach, and keeping up irritation in the small intestines (occasioning flatulence and grumbling of the bowels, termed borborygmus) they uniformly increase the general debility of the system. The flowers or milk of sulphur, with magnesia and

ginger, is a popular composition, and by neutralising acid matter in the stomach, (which always, more or less, prevails in gouty subjects), and by promoting sensible and insensible perspiration, often succeeds in quieting or allaying the flying pains of irregular gout; but it never produces satisfactory alvine evacuations, and, by disordering the stomach and small intestines, induces general debility.

To the following composition, which is highly extolled by Dr. Scudamore, who has extended his *practical* remarks on gout to a guinea volume, the same objections may be made:—

> Take of magnesia, 15 grains; Epsom salt, a drachm and a half; vinegar of the meadow-saffron, 1 drachm; cinnamon water, 10 drachms; extract of liquorice, 10 grains.—Mix.

The meadow-saffron is unquestionably a valuable sedative, in what is properly termed inflammatory or super-irritative gout, *i. e.* gout with an excess of inflammatory action and febrile disorder of the whole system; but long experience has satisfied us that it should only be employed as a febrifuge, to allay excessive irritation, or in cases of violent attacks, where the brain and nervous system are much excited; and never, as is a common practice, with the view of terminating a paroxysm in a few hours, for such effect is not a cure, but a short suspension of the paroxysm, and, if it be repeated on

a recurrence of the disease, will convert a regular gout, or what may be termed *healthy* gout, into irregular or *unhealthy* gout; a malady which is attended with a long train of symptoms far more harassing than many formidable local diseases, that scarcely admit of palliation; the invalid being very rarely free, for the course of a day, from some distressing affection of the stomach, intestines, or brain, with a miserable state of mind. The addition of a powerful sedative to an aperient medicine, even in super-irritative gout, is bad, inasmuch as it is impossible to regulate its sedative effects during the operation of the purgative ingredients; and if the latter were to be excessive, which in irritable debilitated subjects is often the case, the sedative ingredient might induce a most dangerous degree of debility, or even terminate life. Another no less serious objection is, that by reducing the energy of the stomach, the patient, after the operation of the purgative ingredients, does not possess the power of rallying, and will often continue subject to indigestion for many weeks.

The two preceding compositions, like the Epsom salt, the saline aperient mineral waters, Seidlitz salts, castor oil, and other supposed *mild* or *cooling* aperients, by disordering the stomach and small intestines, interrupt the process of digestion, so as to reduce the vital powers of the system; whereas an active aromatic purgative medicine, by stimulating the stomach and intestines, and promoting the circulation through the viscera, invigorates the abdominal nerves; and, by purg-

ing, as it were, all the abdominal viscera, promotes the alvine secretions, and carrying off the contents of the colon and rectum, (excrementitious secretion, the refuse of food, undigested food, and gas) instead of increasing or inducing debility, strengthens the whole body, by bringing the vital powers into action. The brain is relieved—the stomach and the whole muscular system invigorated—and the mind freed from hypochondriacal fancies. In fact, an active purge rouses the vital powers—brings the viscera into action—and proves a cordial to the mind; whereas, the mild or cooling aperient medicines induce debility, by disordering the stomach and small intestines, and occasion the canal to be distended with gas.*

* We lately visited a gouty invalid, who, by the daily dose of a *mild* aperient medicine, (composed of Epsom salt, magnesia, sulphur, and the wine of the meadow-saffron) was in such an alarming state of debility, that he thought one evacuation from the bowels would terminate his life. His stomach and intestines were much distended by gas, attended with a distressing croaking noise—his countenance much dejected—the extremities cold—and the pulse very low. We ordered three stimulating purgative pills (the Bengal aperient, see page 35), and the following morning we found him engaged in his library. He told us, that after the first evacuation the medicine produced, he evidently experienced an accession of strength, and such were the different effects of the *mild* and of the strong purgative, that the evacuations produced by the former reduced his strength; whereas, every motion by the latter, although much more copious, increased it. The motions were also different in appearance; those by the pills being throughout of the same consistence, attended with a considerable escape of gas, and emitting a strong feculent odour; whereas, those by the *mild, cooling* medicine, consisted of lumps and a very thin fluid, were scarcely flatulent, and the odour by no means strong.

A composition of the compound colocynth pill, or extract with calomel, is a common formula for an active purge with practitioners in general, to empty the intestinal canal in cases of regular and irregular gout; and as an *occasional* active purgative, it is no doubt a very valuable combination; but for a common regular aperient, which most gouty subjects require once or twice a week, two of the articles are very objectionable; viz. the aloes and calomel. The rectum of gouty subjects being, in general, very irritable or tender, and consequently disposed to organic disease, a *regular* purgative medicine should be free from aloes; and as mercury, when it enters the constitution so as to disturb the nervous system, is very apt to disorder the whole body, it is an improper ingredient for a medicine which is to be taken regularly after intervals of a few days. The author of the New Medico-Chirurgical Pharmacopœia, has introduced the following formula of an active purging pill, under the name of " Compound Pills of Elaterium:*

> Take of extract of elaterium, 10 grains; cathartic extract, 2 drachms; resin of jalap, castile soap, of each 1 drachm.—Mix, and after forming a mass with a sufficient quantity of oil of juniper, divide into fifty pills: the dose is from two to three pills occasionally.

They were frequent, but small in quantity, ten evacuations by the mild aperient, being equal to one by the active medicine.

* The third edition, page 123.

On this combination, the author makes the following observation:—"This composition is much recommended by Dr. Bethell, an experienced and scientific physician of Brentford, as an active purgative in cases of gout and inflammatory excitement." The Doctor states that he has found the pills to allay gouty and inflammatory excitement more effectually than colchicum, or any other cathartic or sedative medicine, and, unlike colchicum, to improve the general health. They not only empty the intestinal canal, but also purge the viscera, and unload the cellular membrane of leucophlegmatic or dropsical habits, probably by increasing the secretion of urine. We have often prescribed these pills in cases of gout and rheumatism, and their effects have generally confirmed the high character Dr. Bethell has given them; but, on account of the quantity of aloes which enters the composition of the cathartic extract, they are not a proper *regular* opening medicine. The composition recommended by Dr. Dick, an eminent physician of Calcutta, named the Bengal Aperient Pills (noticed in vol. I. pages 106, 158, and vol. III. page 869, of the Gazette of Health,) is preferable to the preceding combination, on account of being free from aloes and mercury, and at the same time equally efficacious as an intestinal, and, we may say, a general *visceral* purge. Dr. Dick says he not only found it to unload the liver more effectually than calomel and blue pill combined with the cathartic extract, but to empty the

intestinal canal without irritating the rectum, and to leave the stomach in an improved state of health. By unloading the vessels of the brain, and promoting the circulation throughout the body, they tranquillize and strengthen the nervous system, which is more the seat of gout than even the sanguiferous system, or any part of the body.

An active purgative should be employed only occasionally, *i. e.* when the state of the system (as overloaded bowels, inordinate determination of blood to the head, flatulence and flying gouty pains,) indicates its use. If employed oftener than twice a week for a longer period than a month, it may, and probably will, produce mischief in some part of the intestinal canal, most likely in the colon or rectum. When the intestines are much distended with gas, or spasms occur in them, the antispasmodic lavement, No. XIV. in the Appendix, may be administered occasionally, to which half a drachm of socotrine aloes (in fine powder) may be added, if the bowels be confined. The costiveness of a gouty subject is seldom to be obviated by any particular regimen. The aperient diet we have recommended (page 14) to overcome habitual constipation, very few gouty subjects can adopt with impunity. The articles not being easily converted into chyme by the stomach of gouty invalids, they are often productive of considerable disorder of the system, by the products of fermentation, as acidity, flatulence, &c. In case of sluggishness of the bowels, a small dose of

an active aperient medicine is therefore necessary every day to keep up the peristaltic motion, and for this purpose we have found the following composition most efficacious.

> Take of extract of rhubarb, alcaline extract of jalap, of each one drachm; oil of juniper, twenty drops; dried subcarbonate of soda, half a drachm.—Mix, and divide into 35 pills; one, two, or three to be taken every day (according to their aperient effects) about two hours before dinner, with a wine-glassful of water (lukewarm).

If the stomach does not perform its office properly, three tea-spoonsful of the light volatile aromatic tincture of bark, recommended for debilitated subjects, page 41, may be taken three times a day, in about two spoonsful of water. A bitter medicine should only be taken when the stomach is in a state of great irritation, the long-continued use having been found to induce general debility in a gouty subject.*

In elderly gouty invalids and worn-out gouty

* The tincture of the mealy part of the strobules of the hop, termed lupulin, and the sulphate of quinine, which have lately been highly extolled as remedies for general debility, are improper in gouty subjects, and in cases of indigestion of elderly people. Being powerful bitters, the continued use of them has, in gouty and elderly people, produced fatal palsy of the stomach. The sudden death of gouty subjects, after a continued use of an intense bitter, has been noticed by many ancient physicians.

debauchees, (a very numerous class of invalids in this country and France,) the sphincter muscle of the rectum is often in such a state of debility as not to be equal to the expulsion of the contents of the rectum. In such a case, the treatment recommended for costiveness of elderly subjects (p. 49 to 51), especially the use of a stimulating lavement, will be necessary. (See *Gout Cordial*, p. 106.)

An intelligent gouty subject, of sixty years of age, recommends the inflamed part to be covered with olive oil. The following is an extract of his letter on this mode of topical treatment, which appears in the 110th Number of the Monthly Gazette of Health:

"Having been free from gout nine months, I have lately had rather a sudden and a severe attack, with a good deal of inflammation, considerable swelling, and acute pain in my left hand and wrist, in the hand-joints of the fingers, and in the hand-joint of the thumb; so as to render my hand useless.

"As is usual with me, I anointed the hand and wrist six or seven times a day, with olive oil, by means of a camel's-hair flat varnish-brush—covering them with linen (called rags)—or, in preference, lightly rolling round them an old, soft, thin hand-kerchief, as I cannot bear the touch of flannel to the inflamed skin—constantly keeping the hand and arm out of bed night and day—taking care to have the arm and shoulder sufficiently covered with flannel to be comfortably warm. By this, although

I have been nearly confined to my bed above a week, I have not had one night, in which I did not get five or six hours uninterrupted sleep. The sensations I experience are, the oil cools the skin, softens it, and allows it to stretch with greater ease and facility. I think the coating, or covering of the oil, prevents the oxygen of the atmosphere increasing the inflammation; for as the oil is imbibed, the skin gets dry, and the hand hot; the action of the air tells me a fresh application is wanting, and I apply it. If it is in the hand or wrist, I have a saucer, with a little oil (not to spill), and the brush, upon the table by the bedside, that if I wake in the night, and find the hand hot, I may use it. I have shortly afterwards gone to sleep, and slept until the morning.

"When I have, which I several times have had, the gout in both feet at *once*, I adopt the same plan; sometimes covering them with linen, sometimes not—wearing a pair of large worsted stockings—having the bed-clothes turned up—the feet out of bed—and no covering but the stockings and the sheet lightly laid over them. And this I have done in the severest nights in winter. The effect has been such a mitigation of pain, that I have been able, two or three times, in the night, insensibly to drop asleep; when, without this, I must have been roaring out. This I call air-bathing. I have never found that the *exposure* of either my hands or feet to the cold air of a winter's night, has ever given me the slightest cold, or any transmission of gout. I have found my

hand at night so cool, easy, and with so little pain, that I have ventured to put it into bed, but have soon found, in five or ten minutes, the warmth and heat have renewed and increased the inflammation and pain, that I have been obliged to turn it out of bed for the night. When either the hands or feet will bear the warmth, heat, and pressure of the bed-clothes, this is the best thermometer for convalescence I have been able to discover. I then consider the paroxysm as over, and without the danger of a relapse. Perhaps you will say knit worsted stockings are as irritating as flannel, but they are not of so close a texture, and the interstices of the net-work (if I may so call it) allow of a freer circulation of air through them than thick flannel. Should any old gouty general, who has stood unmoved with the balls whizzing about his ears, be fearful of trying the experiment, he can wrap a piece of flannel two or three times round the soft envelope of his hand, and he need not then be afraid, in retirement, of exposing his limbs. The sensation of cold *through* the oil is different to that of a frosty air; to the naked skin of the fingers and hand of the well-hand, it is not so pungent."

As auxiliaries to the above medicinal treatment, exercise on horseback, or by means of the machine termed the chamber-horse, galvanism, friction over the bowels by the galvanic brush or a dried hare-skin, lavement of a weak solution of common salt, and the warm bath, are the most important.

CHAP. IX.

COSTIVENESS OF RHEUMATIC SUBJECTS.

THE bowels of individuals subject to chronic rheumatism are generally in such an indolent state, that it has been observed, some days previously to, or during a paroxysm or exacerbation of pain, the temperature of the abdomen is considerably reduced.

Some practitioners suppose that rheumatism takes place only in the tendinous and membranous parts of the body, and that its distinguishing symptoms arise from the peculiar texture of the parts, and therefore (not admitting of the nervous irritation or excitement advancing to a sufficient degree of active inflammation, as to proceed to suppuration), never attacks the stomach, intestines, or any other viscus of the abdomen or chest: but, even if this opinion were correct, surely the pleura, the peritoneal covering of the viscera, the tendinous expansion of the diaphragm, the ligamentous coat of the ascending and descending aorta, and their ramifications, are of the same peculiar structure.

Some cases of supposed translation of rheumatism from the extremities to the bowels, have been lately published, to prove that the bowels are subject to rheumatism; but they were all *acute* cases, arising from sudden changes in the atmosphere, *i. e.* the consequence of what is vulgarly termed "taking cold;" and in such cases it is common for pains in the limbs to be forerunners of internal inflammation, and for them to cease when the inflammation takes place; but no experienced practitioner would consider the local inflammation in such cases to be translated rheumatism. It is also common for chronic rheumatic pains in the limbs to cease, on an organic disease of the bladder, rectum, or mammary glands becoming painful, or arriving to its last stage; but in such cases it would be absurd to suppose that the organic disease is of a rheumatic nature, or that the rheumatic affection is translated to the seat of the organic disease. Certain it is, rheumatic invalids often experience obtuse pains in the stomach and bowels, and an irregular action of the bowels on unfavourable vicissitudes in the weather, which terminate when rheumatism takes place in the extremities. Chronic rheumatism in the extremities appears to be greatly dependant on a want of vigour in the abdominal viscera, an attack being preceded and accompanied by a sense of coldness in the stomach and intestines, and the rheumatic pains in the extremities being uniformly relieved by medicines which stimulate

the bowels, and external applications which raise their temperature. Copious fæcal evacuations do not afford that relief to rheumatic as to gouty subjects, often in emaciated habits inducing much debility. Small doses of a stimulating purgative, combined with a stimulating diuretic and diaphoretic medicine, we have found very beneficial, not only in obviating costiveness, but in allaying rheumatic pains in the extremities, and often in curing the disease. The following is our favourite composition in such cases:

> Take of aromatic pill, 1 drachm; ipecacuan powder, 10 grains; Canada balsam, 1 drachm; Guaiac gum in powder, a sufficient quantity to form a mass: to be divided into middle-sized pills; two or three to be taken twice a day, with a wine-glass of the infusion of buchu leaves or juniper berries.

The aperient salts, as the Epsom, Glauber's, Seidlitz powders, &c., and the native saline mineral waters of Cheltenham, Leamington, &c., by reducing the temperature of the abdominal viscera, generally occasion an aggravation of *chronic* rheumatism in the extremities, and disorder the whole system. The objections we have made to these supposed cooling purgatives in cases of gout, apply with equal force to their use in cases of rheumatism. The pills we have recommended above, increase the excrementitious secretion of the colon, and it is worthy of notice, that the

benefit rheumatic and gouty patients derive from a purgative is in proportion to the dark colour and strong feculent or hydrogenous odour of the motions; and those patients who pay attention to the alvine discharge, consider such characters as of a very favourable import, especially when they take place spontaneously. We have so frequently observed the most distressing nervous restlessness, or general excitement of the nervous system to cease on copious discharges of dark offensive fæces, and particularly when hydrogen gas escaped with them in considerable quantity, that we have been disposed to consider the latter as a discharge from the nervous system into the colon.

If the invalid be subject to piles, or irritation about the rectum, two scruples of the extract of the alcaline jalap may be substituted for the aromatic pill, to which half a drachm of extract of gentian may be added, if there be symptoms of indigestion, as loss of appetite, flatulence, heartburn, &c. As a topical application, to stimulate the skin over the part or parts affected, we have found the cajeput liniment, noticed in the Gazette of Health, p. 26, Vol. I. the most efficacious. As auxiliaries, the warm-bath, the sudatory, electricity, friction by means of the galvanic brush, flagellation with nettles, and dry cupping, are the most powerful. If the patient be of an irritable or feverish habit, thirty drops of the volatile tincture of colchicum seeds, and twenty of the tincture of foxglove, may be taken twice

a day in a wine-glassful of an infusion of bark, or with the volatile aromatic tincture of bark, noticed p. 41.

The above directions apply only to *chronic* rheumatism. The pills for regulating the intestines, by invigorating the digestive organs, and keeping up a proper circulation throughout the abdominal viscera, will secure the constitution against attacks of acute rheumatism, on atmospherical viscissitudes; but during the inflammatory stage of the disease, a less stimulating purgative should be employed, as the pill of the alcaline extract of jalap, &c. recommended for constitutional costiveness, p. 20.

Mr. Abernethy has published the following case, which was pronounced to be rheumatism, to illustrate the advantage of attending to the digestive organs in painful affection of the muscles of the extremities.

" I was consulted by a medical gentleman in my neighbourhood, on the case of a lady about forty years of age, who had been long subject to indigestion, and severe head-aches. Her present and chief complaint had been of about three months' duration. It began with weakness, and an apparent irregularity in the motions of the lower extremities, attended with considerable pains resembling rheumatism, and rigidity of the calves of the legs. These symptoms increasing, she was unable, in the course of a month, to move about at all; but was obliged to be lifted in and out o

bed. At this time an induration of the muscles of the calf of each leg had taken place. The indurated substance was about three inches in length, and between two and three in breadth. It was severely painful at times, and the integuments covering it were occasionally inflamed. There was also some pain and swelling in the ham. Leeches, sedative lotions, and mercurial ointment had been applied; cicuta and tonics had been given, but without alleviating the symptoms. I first saw the patient about six weeks after she had been obliged to keep her bed entirely; and the peculiarities of the present case led me at once to refer its origin to the state of the health in general. The appetite and digestion were impaired, the tongue was much furred, and the fæces blackish. I merely recommended fomentations to the indurated parts, considering it the primary object to correct the morbid state of the digestive organs. With this view the compound infusion of gentian with the infusion of senna and tincture of cardamoms was given, in such doses as to procure an adequate evacuation daily, and five grains of the blue pill were taken every second night. These simple medicines were completely successful: after taking them a short time, the discharges from the bowels were natural, and properly coloured with bile. The appetite returned; the tongue became clean, and the pains almost immediately ceased. No cutaneous inflammation, indicating a disposition to suppuration,

appeared again over the indurated parts, which gradually recovered their natural state. In a fortnight the patient could go about with a stick, and in two months could walk as well as before her complaint. She has enjoyed better health since this time, than for many years before.

"The state of the indurated muscles, in this case, was such as would lead to the belief that suppuration would take place in different parts of the hardness; indeed, I have seen many cases less formidable in appearance terminate in that manner. Seeing how much the irritability of muscles is disordered by that state of constitution which I have been describing, I think it is allowable to conclude that diseases of muscles, productive of alterations in their natural structure, originate from this cause."

CHAP. X.

COSTIVENESS OF PLETHORIC SUBJECTS PREDISPOSED TO APOPLEXY.

To a person of a plethoric habit, with a short neck, costiveness is particularly injurious. It not only favours an increase of blood in the venous system, by the distended bowels compressing the descending aorta, but occasions an increased afflux of blood to the head, and at the same time, by compressing the veins, retards its return from the head; and hence the great relief some plethoric subjects receive, in cases of stupor, oppression of the chest, and indigestion, from the operation of a brisk purgative. Costiveness is, therefore, a very common precursor of apoplexy, and of inflammatory affections of the head. When the blood-vessels of the brain are evidently overloaded, a *full* dose of a brisk cathartic is necessary; and here an aloetic purge, as the cathartic extract, or the compound colycinth pill, by its stimulating effects on the rectum (occasioning a determination of blood to the bowels, and even the lower extremities), is most beneficial.

To obviate costiveness, and accelerate the cir-

culation of the blood through the bowels, ten grains of the aromatic pill (in two pills) may be taken once or twice a day; but, as the system of blood-vessels are frequently overloaded, in consequence of the kidneys not performing their office, and as the secretion of urine is immediately from the mass of blood, it is good practice to employ a diuretic medicine with an aperient, as the oil of juniper in the mass of the pills, or an infusion of the buchu leaves or juniper berries two or three times a day.

The aperient neutral salts, as Glauber's, the Epsom, Rochelle, and the saline aperient waters, so frequently prescribed to obviate costiveness in a plethoric habit predisposed to apoplexy, by reducing the temperature of the abdomen, has often a very pernicious effect. The objections to this class of aperient medicines, noticed p. 96, apply with greater force to cases of costiveness in plethoric habits predisposed to apoplexy, than any other species of costiveness.

The shower-bath, or the application of cold water to the head every morning by means of a napkin, the asarabacca snuff (a pinch once a day), to increase the secretion from the nostrils, flannel socks to the feet, exercise (walking), and abstemious diet, are necessary auxiliaries; and if attended with symptoms of an impending fit, copious abstraction of blood from a vein.

Mr. Abernethy, speaking of the "information he has obtained by dissection, relative to the

causation of other diseases by those of the digestive organs," observes: "The *reciprocal* sympathy which exists between the brain and the digestive organs, is generally admitted; but the kind and the degree of the effects arising from this sympathy, is not, perhaps, in general, sufficiently understood. These organs mutually increase each other's disorder; till the affection of the sensorium leads to the greatest disturbance of the nervous functions, and even those of the mind.

"All this may happen without any visible disease of the brain. Dr. Kirkland particularly directed the attention of medical men to *nervous* apoplexy; and the observations which have been made since his time have proved, that not only a general derangement of the functions of the nervous system producing apoplexy, but also partial effects of a similar nature, causing hemiplegia and paralysis, may take place, without any *visible change* of structure in the brain. I have," says Mr. Abernethy, "met with *numerous* instances of this kind; but could not determine whether the affections were merely nervous, or whether they were produced or aggravated by disorder of the digestive organs. I only know, that the patients died affected by apoplexy, hemiplegia, or more local paralysis, without *any* derangement in the evident structure of the brain. I may also mention, that I formerly examined the brains of three persons who died in a comatose state, in con-

sequence of the metastasis of rheumatism. In these cases no morbid appearance was observed in the brain, except some slight marks of inflammation of the pia mater. It therefore appears clearly to me, that disorder and a *considerable diminution* of the *nervous* functions may take place, without *any* organic affection of the brain. The perfect recovery of patients, which sometimes happens, after such disorders, may also be considered as additional evidence of there having been, in such instances, no organic disease of the brain."

Apoplexy is, in elderly people, a common consequence of over-distension of the venous sinuses, and in such cases no morbid change in the *structure* of the brain would appear on dissection; and if the head be not examined for twenty-four hours after death, and it be kept elevated during that time, the blood would probably gravitate, so as to leave no appearance of congestion.

Giddiness is generally considered an indication of the brain being compressed, or rather oppressed, by over-distended blood-vessels; but it is a symptom both of plenitude and depletion, and is an uniform precursor of fainting after the loss of blood. Indeed, every practitioner of experience and observation must be aware that cases of giddiness frequently occur, in which it is often difficult to determine whether it be the effect of congestion of blood-vessels, or some disordered condition of the brain, or sympathetic, of an affection of the stomach or bowels. The late Dr. Baillie

acknowledged that he was often at a loss to determine the cause of giddiness; and, whenever it was not clear, he generally ordered an abstraction of six or eight ounces of blood by cupping, as a test of its nature. If this treatment afford no relief, and especially if it aggravate the complaint, he recommends a nervous stomachic medicine *.

In general we may judge of the state of the blood-vessels of the brain by the appearance of the eyes, particularly if the vessels of the external tunic be considerably distended: this, however, does not afford a certain indication; but, when with this appearance the giddiness is increased, by positions of the body that favour the afflux of blood to the head, as stooping, looking upwards, lying down, &c., there can be little doubt of the complaint being congestion of the vessels of the head. We have known patients who had scarcely been free for one month from attacks of giddiness for fifty years, which were sometimes attended with a degree of loss of sense and motion nearly approaching to apoplexy, but who always experienced an aggravation of the complaint from bleeding. They all died at an advanced age, of diseased bowels. Flatulence is a common cause

* The following was his favourite remedy for nervous giddiness:

Take of camphorated julep, 7 ounces; powdered valerian root, 3 drachms; compound spirit of ammonia, 3 drachms; carbonate of soda, 3 drachms; tincture of cascarilla, 6 drachms.—Mix. Three table-spoonsful to be taken three times a day.

of giddiness, probably by distending the stomach and bowels, so as to compress the vessels of the belly, and check the return of blood from the head. In such case it is clear, the object of practice is to expel the gas accumulated in the alimentary canal by a stimulant (as brandy or spirit of sal volatile), and that abstraction of blood would prove injurious. A clergyman of Herefordshire, apparently predisposed to apoplexy, always had recourse to a gout cordial*, whenever he was affected with giddiness, in direct opposition to the advice of his physician, the late Dr. Campbell; and by this practice, and attending to his bowels, he lived to a good old age: and the Doctor was at length so satisfied of the benefit he derived from it, that he had recourse to it himself whenever he was affected with giddiness, although apparently produced by cerebral congestion, and he thought he thereby prolonged his

* A variety of receipts have been published for making a gout cordial, to some of which great objection may be made, on account of their bitter ingredients. The following we have found most efficacious. It is not only an excellent antispasmodic, but also stomachic.

Take of the best Turkey rhubarb, sliced, half an ounce; the lesser cardamom seeds, bruised, 6 drachms; hay saffron, 3 drachms; orange peel, bruised, 2 ounces and a half; spirit of the buchu leaves, 1 quart.—Mix.

After standing in a bottle, well corked, for a fortnight (during which the liquor should be shaken once a day), strain the liquor through fine gauze, for use. The dose is from two table-spoonsful to a wine-glassful, according to the degree of pain or spasms in the stomach or bowels.

life many years. It has been supposed, that a stimulus applied to the stomach, when the vessels of the brain are over-distended, might so far increase the determination of blood to the head, as to occasion apoplexy; but may not a stimulus to the stomach rather relieve the brain, by promoting the circulation in the stomach and bowels? Apoplexy in elderly subjects is generally the effect of *venous* plenitude; and in such cases, when the congestion is local, we conceive stimulants are necessary to enable the vessels to transmit their contents to the heart.

It appears to us somewhat strange that the ancient and modern physicians, in their different modes of unloading the sanguiferous system, should have entirely disregarded those medicines which increase the secretion of urine, or in cases of plethora neglect the secretion of the kidneys, a fluid which is more immediately separated from the blood than the evacuations from the intestines, to which they paid so much attention. It is very seldom, in cases of over-distension of the system of blood-vessels, that a physician makes any inquiry respecting the *quantity* of urine the patient evacuates daily, and never under the idea of its having any thing to do with the state of the circulation. The urine being separated immediately from the blood by the kidneys, there can be no doubt that plenitude is very often the consequence of a sluggish state of the kidneys; and we have known many patients of observation, on suffering from fulness,

take a diuretic article, as gin, infusion of wild carrot seed, parsley root, &c., to increase the secretion of urine, and which they found to produce the desired effect. When the kidneys do not perform their duty, the watery part of the blood generally escapes by the exhalents into the cellular substance or some cavity of the body, producing general or local dropsy; and if this did not ensue, the sanguiferous system would be so overloaded, that a rupture of a vessel would probably take place in the brain, so as to occasion fatal apoplexy, or in the lungs. In inflammatory fevers there is generally a paucity of urine; and it is probable that the saline mixture, nitre, and other diuretic medicines, prove beneficial chiefly by promoting the secretion of urine. A diuretic medicine is therefore an important addition to an aperient one in cases of plethora, or when administered as a preventive of apoplexy to people predisposed to the disease. Long experience has satisfied us that, in cases of plethora, it is nearly of as much importance to attend to the secretion of the kidneys as to the state of the bowels; and that plenitude of the sanguiferous system is more frequently the consequence of sluggishness of the kidneys, than of the intestinal canal. An asthmatic fit is so generally preceded by a paucity of urine, that all asthmatics are satisfied of the importance of keeping up the action of the kidneys. We advise those who are disposed to plethora, and, from their make, to apoplexy, in their attention

to the intestinal canal, not to lose sight of the kidneys. The gout cordial we have recommended page 106, is not only aperient, but diuretic. If it should not be sufficiently aperient, six drachms or an ounce of senna leaves (bruised) may be added to it. The spirit of the infusion of the buchu leaves is the most certain diuretic medicine with which we are acquainted. It may be taken in the same manner as gin, to which it is preferred as a cordial, by the English merchants residing at the Cape of Good Hope.

When apoplexy has taken place, the patient not having the power of swallowing, a solution of the cathartic extract (half a drachm or two scruples), in eight ounces of an infusion of juniper berries or buchu leaves, should be introduced into the stomach by means of Read's Stomachic Syringe. It being of great importance in such cases to bring the bowels into action, the operation of this composition on the intestines and kidneys should be promoted by a lavement of a solution of aloes in either of the above infusions. In some cases of apoplexy, a few drops of the croton oil, rubbed over the tongue and soft palate, have excited purging. If effusion of blood has not taken place in the head, an emetic may also be introduced into the stomach (as ten grains of sulphate of zinc, with half an ounce of ipecacuan wine, in half a pint of warm water), with the view of removing the local congestion, by promoting the circulation in the extremities, the viscera, and skin, and of

propelling the blood through the distended vessels. With the beneficial effects of spontaneous vomiting in cases of impending apoplexy, most experienced practitioners are acquainted; and after abstraction of blood from a vein, there is little fear of its doing mischief, although the afflux of blood to the brain is evidently increased during the operation. Where the success of an operation of nature is nearly uniform, we are justified in imitating her. On the propriety of exhibiting an emetic during impending apoplexy, or after it has taken place, and on the advantages of the different modes of abstracting blood, we have given an article in the 121st Number of the Gazette of Health, under the head of *Leeches* and *Emetics*. When bleeding, blistering, purging, and sinapisms to the feet afford no relief, an emetic is, in our opinion, the only remedy that is likely to give the patient a chance of recovery.

CHAP. XI.

COSTIVENESS ATTENDANT ON THE DIFFERENT VARIETIES OF PALSY.

CULLEN defines palsy to be a partial impairment of the voluntary motions, often accompanied with sleep or drowsiness. In paralytic parts it does not appear that the irritability (a property residing in muscles) is diminished, the patient only losing the power of exercising the mind on them, in consequence of the nerves being paralysed, which connect them with the sensorium; for when brought into action by the stimulus of the electric or galvanic fluid, or by a mechanical irritant, after removing the integuments, they exhibit the same degree of contractile power as the corresponding muscles of the healthy limb.

Four primary paralytic diseases are noticed by authors: viz.—

1st.—*Partial* palsy (confined to certain nerves).

2nd.—*Hemiplegic* (of one side of the body). Of this species there are two varieties. First, in plethoric habits—a sequel of apoplexy; secondly, in leucophlegmatic habits, from effusion of serum within the cavity of the skull.

3rd.—Paraplegic palsy—(of the lower extremities).

4th.—Palsy from poison—externally or internally used.

Partial palsy is produced by some local cause, as a tumour compressing a nerve or a branch of it, or by some morbid change in its structure. When it is the consequence of mechanical pressure, it is obvious that little benefit can arise from application to the nerve, or from internal remedies, till the cause is removed. When the nerve is diseased, all that art can do is, to improve the general health, and to stimulate the benumbed nerve by shampooing or the electric fluid. The fact of the nerves of the upper extremities often becoming paralysed during the dry belly-ache, and continuing in that state for many months, and sometimes years, after the removal of the internal disease, strongly points out the necessity of attending to the state of the intestinal canal (with which a most important part of the nervous system is very closely connected, viz. the ganglionic) in all cases of palsy, and, indeed, from these circumstances, in all nervous affections. When palsy is the sequel of apoplexy, or occasioned by over-distension of the venous sinuses of the brain, it is of great importance to guard against every thing that is likely to compress the vessels of the belly, as tight waistbands, bandages, &c., and to promote the circulation in the viscera by stimulating purgatives. But we are not to depend

even on powerful purgative medicines to unload the sanguiferous system in cases of plethora, for frequent copious alvine evacuations seem to have very little, if any, effect on *general* plethora. Abstraction of blood will therefore be necessary in case of general plenitude, and indeed in local congestion of the vessels of the brain, in a case of palsy from apoplexy; after which a warm aperient medicine, by preventing distension of the bowels by an accumulation of fæces, or flatus, and by promoting the circulation of the viscera, will prevent a recurrence of apoplexy. It is common for physicians to condemn the use of aromatic or stimulating purgatives, under the idea that they increase the determination of blood to the head; but the fact is, by accelerating the circulation in the bowels, they produce a derivation in favour of the head, whilst the cooling aperient salts, as the Epsom or Glauber's salt, and the saline aperient waters of Cheltenham, by diminishing the visceral circulation, occasion an increased afflux of blood to the head; of which apoplexy is a common consequence. The stimulating effects of *spirituous* articles being extended to the brain, either from absorption or some peculiar action on the nerves, are unquestionably improper.

The directions we have already given for regulating the bowels in cases of costiveness of people predisposed to apoplexy (page 101), are applicable to palsy, from compression of the brain. Dry

friction, the warm vapour-bath,* dry cupping, shampooing, nettles, the liquor of ammonia, and cajeput opodeldoc, are good topical applications; but electricity, galvanism, and the warm-bath, so frequently recommended to stimulate the paralysed nerves, are often injurious and extremely hazardous, in consequence of increasing the determination of blood to the head. We have known fatal apoplexy immediately to follow the latter remedies.

In cases of palsy of the lower extremities, it is assuredly of great importance to keep up a regular state of the bowels by a stimulating aperient; but the disease being generally occasioned by some affection of the spinal column, or marrow, a local treatment will be necessary, as a perpetual blister, seton, friction, and stimulating embrocations. Friction with the galvanic brush, electricity, and shampooing, have also been found very beneficial when there is not a preternatural determination of blood to the brain.

When palsy is produced by the action of a poison, as lead, &c., or by the dry belly-ach, to which painters, and labourers in lead mines are very liable, the daily use of an *aromatic* aperient will be necessary, as the aromatic pill (noticed

* The pressure of the water, during immersion in a warm-bath, on the trunk of the body, together with the action of heat on the heart and arteries, certainly occasions a preternatural afflux of blood to the brain; whereas by the vapour bath, the circulation is increased in the skin and extremities, in consequence of the body being surrounded by rarefied air.

page 40), to which, in case of obstinate costiveness, the compound colocynth pill should be added.—See *Devonshire Colic.*

In this species of palsy, mercurial friction (as the liniment of mercury of the London Pharmacopœia), galvanism, and electricity, are important remedies. We must do Mr. Mahomed, of Brighton, the justice to say, that in these cases, we have witnessed more extraordinary and speedy cures from his system of shampooing than from any other topical treatment. This gentleman, by a long practice in such cases, is so convinced of the necessity of maintaining a regular state of the bowels, and of sometimes emptying them by a brisk cathartic, that he never fails to give directions for these purposes.

In the first series of the Gazette of Health, we have noticed the good effects of the vomic nut in cases of palsy. This article is a powerful poison, and probably has had a beneficial influence in bringing paralysed nerves into action, by exciting a disposition in the muscular system to convulsive motions, or by occasioning slight convulsions which may re-establish the natural connexion between the affected nerves, and the muscles through which they ramify; for it has been observed, that when such effects are not produced by it, the paralytic affection is rather increased than otherwise.

If the digestive organs should require invigorating, two tea-spoonsful of the volatile aromatic tincture of bark may be taken two or three

times a day in a wine-glass of water. The objects of this tincture are to accelerate the circulation, prevent the production or accumulation of air in the stomach or intestines, and to increase the peristaltic motion; and if it should excite considerable appetite, it should not be gratified by full meals; for in such case, by producing plethora, it would prove very injurious. If the bowels should be very sluggish, the stimulating lavement, recommended in page 39, for costiveness from debility, may be employed.

It is of importance to distinguish palsy of a part of the body arising from slight effusion of blood in some portion of the brain, from the species termed partial palsy, the consequence of compression of the trunk or branch of a nerve, or from morbid structure; as some of the remedies applicable to the latter (as electricity, galvanism, &c.) might prove highly injurious in the former, by occasioning an undue determination of blood to the head. Dissection has satisfactorily proved, that slight effusions of blood in various parts of the brain, have been known to paralyse one leg, or one arm, the nerves of the tongue, or of one half of the face, without affecting any other part of the nervous system. Some practitioners suppose, that when there is *considerable* and *continued* palsy, there must necessarily exist some pressure or organic disease of the brain. That the cause frequently exists in the brain, there is no doubt; but "the number of cases," says Mr. Abernethy,

"in which the paralytic affection is *merely nervous*, and *independent* of visible disease, is, in my opinion, very considerable." The instances which have been related warrant this conclusion, and shew such cases to be more frequent than is generally supposed. When there is organic disease of the brain, the case is very hopeless; and probably no considerable alleviation of the symptoms will take place, by attention to the state of the digestive organs. In dubious cases,—and such, on the first examination of them, the majority of these instances will probably be,—it seems right to try the effect of correcting disorder of the digestive organs, with a view to alleviate nervous irritation, before we proceed to those severer methods, which the belief of the existence of organic or vascular disease in the brain would induce us to institute. For if blood-letting and counter-irritation be employed, in order to diminish vascular action; or if mercury be used to some extent, in order to induce the absorption of deposited substance; these measures must aggravate that disorder of the general health, upon which, in many instances, the nervous affection depends.

After noticing the great advantage paralytic patients have derived from a chylopoietic treatment, Mr. Abernethy observes—"It is right, however, to mention, that in some cases to which I have attended, I have been foiled in my endeavours to correct, by the simple measures which I have related in the introductory remarks, the disorders

of the digestive organs; *probably because their derangement depended* on some established disease of the brain.

"In other cases, when the functions of the digestive organs had been partially restored, the nervous and muscular affections were mitigated, but not cured. I have also met with one instance, in which the bowels became moderately correct in their functions, without any evident amendment in the state of the limbs; and I have known two instances of persons, who were suddenly seized with paralysis of the lower extremities, apparently dependant on general nervous disorder, in which the digestive organs scarcely seemed affected."

CHAP. XII.

COSTIVENESS ATTENDANT ON PILES.

COSTIVENESS not only aggravates the distension of the hemorrhoidal veins and the effusion in the surrounding cellular membrane, constituting piles, but is generally the principal cause of the complaint. One dose of an active purgative, by unloading the lower intestines, generally affords considerable relief; but a repetition of it in the course of a few days, frequently increases the irritation. After unloading the bowels, a reaccumulation of fæces in the colon and rectum should be prevented by the regular use of a mild dose of an active aperient, so as to produce one or two copious soft motions daily, in conjunction with a remedy, capable of allaying irritation in the rectum.

The following composition we have known not only to obviate costiveness without exciting griping pains in the intestines, but effectually to allay irritation and inflammatory excitement in the rectum :—

Take of alcaline extract of jalap, one drachm; purified pitch (Stockholm) half a drachm.—Mix, and divide into twenty-four pills; two or three to be taken once or twice a day.

A lavement of cold thin gruel, or cold water, once a day, has been lately much extolled by some French writers, as a remedy for piles and irritative affections of the rectum and colon; and we have heard some practitioners in this country, who have given them a trial in those complaints, speak very favourably of their effects in allaying irritation, and especially when attended with a disposition to prolapsus, and in constringing relaxed hæmorrhoidal vessels. The decoction of oak bark, injected into the rectum *cold*, which is much recommended by some practitioners in cases of piles, and prolapsus ani, we have always found to excite considerable colicky pains; and when the bowels are irritable, cold water injected into the colon, in case of piles, or inflammatory excitement in the rectum, has brought on inflammatory colic. In a plethoric person, of an apoplectic make, cold water, or cold thin gruel, injected into the rectum, might produce such an afflux of blood to the brain as to occasion apoplexy. The lower portion of the intestines are more susceptible of the action of cold than any part of the body, and in gouty and other invalids of tender bowels, even cold water or cold air applied externally, will often excite colicky pains, or painful purging.

If the parts have sustained much mischief from repeated attacks of inflammatory piles, the following ointment may be applied externally, and by means of a bougie or candle, introduced into the rectum every night:

Take of the hydro-sublimed calomel, 1 drachm; spermaceti ointment, 1 ounce; flowers of zinc, half a drachm.—Mix well together.

When the irritation extends up the rectum, the *soft* rectum bougie, besmeared with this ointment, applied for a few minutes every night and morning, when reclining in a bed, generally removes the disease in a few days, and will effectually prevent structural mischief.

If the parts be in a state of great rigidity, or disposed to stricture or structural mischief, two drachms of the ointment of belladonna may be substituted for the flowers of zinc. If the external skin be excoriated or affected with erysipelatous inflammation, which is generally attended with a distressing itching and an exudation of serum, it may be washed twice a day with the following lotion:

Take of sulphate of copper, 5 grains; elder-flower water, 4 ounces.—Mix.

Or the following ointment may be rubbed over the affected parts every night and morning:

Take of citrine ointment, 6 drachms; Barbadoes tar, half a drachm.—Mix.

All purgatives containing aloes, as the compound colocynth pill, the cathartic extract, (compound extract of colocynth) &c., are improper in cases of piles and morbid irritation of the rectum. Such is the peculiar stimulating effects of aloetic purges on the rectum, that in general, piles, and most other schirrous diseases of the rectum, may be traced to their free use. All the advertised purgative and antibilious pills we have examined contain aloes; and to their regular use we have known invalids, who have fallen cruel sacrifices to the most distressing diseases to which human nature is subject, viz. the schirro-contracted rectum, attribute their affliction.

It is common for physicians unacquainted with surgery to pronounce all irritative affections of the rectum, unattended with external piles, *internal* piles, and to subject the patients to their routine treatment in such cases. Irritation within the rectum, is an attendant on a variety of diseases, many of which advance to an incurable stage, during the time the patient continues under such management. In a late Treatise on Strictures of the Urethra and Rectum, we have noticed the diseases which are often mistaken for internal piles.

CHAP. XIII.

COSTIVENESS ATTENDANT ON JAUNDICE, &c.

The liver of a native of this country, who has been some years exposed to the influence of a tropical climate, becomes so torpid on his returning to his native country, as not to secrete a sufficient quantity of bile to stimulate the intestines; the consequences of which are, an obstinate degree of costiveness and accumulation of slime. To increase the peristaltic motion, in such cases, some practitioners employ a composition which they suppose to be similar to the properties of the bile, as subcarbonate of potass, soap, and aloes; but the subcarbonate of potass and the soap are decomposed by the acid, which always prevails more or less in the stomach, before the composition gets into the duodenum, and the regular use of aloes never fails to excite irritation in the rectum, which in a few months has produced structural mischief. In cases of sluggishness of intestines, from deficiency of bile, we have found the following composition to succeed much better than those in common use:

Take of the alcaline extract of jalap, extract of fumitory, Peruvian balsam, of each half a drachm; dried subcarbonate of soda, one scruple.---Mix, and divide into thirty-six pills. From two to three to be taken twice a day.

Four grains of blue pill should also be taken every night for a fortnight, to invigorate the liver, and promote the secretion of bile. If the motions be slimy, the intestines should be well purged once a week, for the course of a month, and for this purpose the Bengal Aperient Pills of Dr. Dick, noticed page 35, we have found most beneficial. If the liver have sustained structural derangement, a stimulating plaster may be placed over its region, as the camphorated gum plaster with mercury. A stimulating lavement, if the rectum and bladder be free from irritation (as recommended for costiveness attendant on old age and debility), is an important auxiliary. For costiveness attendant on jaundice, the following mixture is an excellent stomachic aperient medicine:

Take of compound decoction of aloes, six ounces; tincture of columbo, six drachms.—Mix. Two or three table-spoonsful to be taken once or twice a day, so as to produce one or two copious alvine evacuations daily.

A blue pill (four grains) may also be taken every night. If the disease be produced by spasms or

biliary concretions (obstructing the duct), four grains of the extract of henbane, and half a tea-spoonful of ether, may be added to each dose of the mixture.

If the patient be subject to piles, or irritation in the rectum or bladder, the pills of extract of jalap, &c., recommended for habitual costiveness, page 20, may be substituted for the above mixture. To this mixture the warm-bath (96) is an important auxiliary.

CHAP. XIV.

COSTIVENESS ATTENDANT ON DISEASED LIVER.

We have noticed, in the preceding chapter, the variety of costiveness which arises from suppression or retention of bile. The fashion of attributing nearly all the diseases that assail the human race to the influence of the bile, and the treatment founded on it of attacking the "enemy in his capital (the liver)," has run a long course, and to the ingenious inventors and their learned proselytes, it has proved very lucrative: and the dentists, the class of physicians vulgarly, but not unaptly, termed *mad*-doctors, undertakers, and proprietors of mad-houses and of antibilious nostrums, have had no reason to condemn the theory. This "enemy (the bile) to the health of the human body," we are told, "sallieth forth from his strong hold, wantonly attacks the head, the lungs, the stomach, intestines, and even the extremities." Hence affections of the brain, diseases and disorders of the brain, lungs, stomach, intestines, &c. and of the extremities, arise from the malignant influence of the bile; and as mercury is the *only* remedy

capable of entering the fortification of this disturber of the animal economy, it is of course the only one that can effectually rout him. The importance given to the functions of the liver in the animal economy, and the influence of its secretion when its quality is bad, or when its quantity is excessive or deficient, in producing a long train of diseases, both acute and chronic, have induced invalids to consider the liver the main-spring or regulating organ of the body. So prevalent is this opinion, that pains in the head, neck, shoulders, back, or extremities, disturbed sleep, spasms in the bowels, heart-burn, and even *acid* eructations, are attributed by the sufferers to the operation of bile; but whether the bile be too copiously or too scantily secreted, or whether it be too mild or too acrimonious in quality, the promulgators of "the hepatic theory," as it is termed by Curry and others, differ in opinion; but this is of no consequence as to the treatment, for whatever may be the state of the liver, of the bile, or of the body, the remedy is mercury, either in the form of blue pill, or calomel !!!

When a theory has numerous proselytes in the profession, or becomes a favourite with the public, a little difference of opinion must of course exist, for the purpose of the grand object, *notoriety*. Hence some of the converts to this hepatic theory contend, that calomel should be administered in *very small doses*, or what Abernethy terms *tranquillizing* doses, and should never exceed a grain

a day; whilst others assert it will do no good unless it be given to the extent of twenty grains three or four times a day. Some assert that a grain once a day *stimulates* the system,—and others, that when administered to the extent of forty to sixty grains a day, it *quiets* or tranquillizes the system; and if the dead could give evidence, the question would be unanimously decided in favour of its *quieting* effects, for many thousands have been hurried to their last sleep by it (luckily for the prescriber) "to that bourne from whence no traveller returns"! One would suppose that the opposite opinions which exist among the followers of the hepatic theory, and especially their opinions with respect to the use of the bile in the animal economy, would induce the most ignorant to suspect their real motives; one party contending that it separates, by some extraordinary chemical manner, the chyle from the chyme;—another, that it acts as a medium of union between oily and other articles;—another, that its only use is to keep up the peristaltic motion of the intestines;—another, that it is excrementitious only;—and another, that its only use is to disorder the system, in order to remind man of his *mortal* condition!

The liver is as much dependant on the state of the stomach for proper nourishment, on the heart for a supply of arterial blood, and on the brain for nervous energy, as any other viscus; in fact, the same process of mutation, by the secerning extremities of arteries and absorbents (deposition

and absorption), is going on in it as in any other part of the body. With respect to its connexion with the stomach, &c. by means of nerves or by sympathy, it is absolutely less than that which exists between the other organs; for such is its n dolence, that serious disease will take place in its substance without disordering any viscus or disturbing the general health, so that its importance in the animal economy depends solely on its secretion—the bile.

With respect to the use of the bile, various opinions have been broached by the ancient and modern physiologists, or those who have paid attention to the *philosophy* of the living body. Certain it is, that brutes have not suffered by the loss of the liver, and Europeans residing in tropical climates have enjoyed good health after it had been nearly destroyed by suppuration.

Mr. Brodie, an inquiring or rather experimental physiologist of the present day, has, with no small degree of exultation, published the result of an experiment he made on a dog, which he and his scientific patron, who is a kind of hypothesising physiologist, think will set the question, as to the use of the bile in the animal economy, to rest for ever! He applied a ligature to the biliary duct (*ductus communis choledochus*) of a dog, which conveys the bile to the part of the intestinal canal (duodenum) in which the chyle is formed; and on examining the contents of the duodenum, after the stomach and duodenum had had time to

perform their functions, *he* did not discover any chyle. The stomach had performed its office, and the chyme had entered the duodenum, but no chyle had formed, and therefore he concludes the presence of bile is necessary for the production of chyle—a very natural conclusion, especially for a physiologist who had *previously* formed the hypothesis. Now, unfortunately for this opinion, the same experiment was more than once made by the very accurate investigator of the "*philosophy* of the animal machine," the late Dr. Fordyce, who found it did not in the smallest degree affect chylification. Indeed the Doctor in several instances discovered chyle within the stomach near to the pylorus, to which the bile is not conveyed. He also found an abundance of chyle in the duodenum of persons whose biliary ducts had been for a considerable time so completely obstructed, that it was impossible for bile to pass through them. These facts alone evidently prove that the bile has nothing to do with the production of chyle. Mr. Abernethy, speaking of the use of the bile, observes, "In the inquiry into the *probable* uses of the bile, it ought to be observed, that in many persons in whom that secretion is either for a *considerable time* WHOLLY *suppressed, very deficient,* or much depraved, it does not appear the *nutrition* of the body (dependant on chylification) is deficient." Indeed, it is worthy of notice that invalids, during the existence of chronic jaundice, frequently become very corpulent—a proof that there could not have

been a deficiency of the production (chyle) on which nourishment depends.

The celebrated Boerhaave, who possessed a *sober* philosophic mind, considered the bile an excrementitious secretion, *i. e.* that the liver co-operates with the kidneys, lungs, skin, and colon, in separating impurities from the blood; but if the bile were merely an excrementitious secretion, one would suppose it would not be conveyed into the part of the intestinal canal in which the article is formed (chyle) for the nourishment of the body. From the experiments made on different animals, and from the examinations of human subjects after death, it appears that the bile does not unite with the chyme or chyle in the duodenum, and that it does not mix with the contents of the intestinal canal until they enter the large intestine—the colon. The idea of impurities existing in the blood is generally ridiculed by a certain class of modern physicians; but physiologists (who are acquainted with the processes of mutation which are constantly going on in the living body) have no doubt of the blood becoming impure when the depurators do not perform their office, or when the chyle is not healthy, and consequently of the necessity of an organ or organs to separate impurities from this vital stream. Chyle is conveyed to the mass of blood to repair the injuries, losses, or local decays the body may sustain; and the old particles, which are removed by the absorbent vessels, being also conveyed to the mass of blood, it must

appear obvious that a depurator is necessary. The kidneys, as we have already observed, convey from the blood impurities and superfluous water. It was supposed by the late Rev. Dr. Priestley, and by the late Dr. Beddoes, and other chemical philosophers, that during respiration, oxygen is absorbed by the red particles of blood; but it has been most satisfactorily ascertained, by Pepys and other eminent chemists of the day, that the oxygen, which is attracted by the red particles of the blood, immediately passes off with the expired air, in combination with the charcoal of the venous blood. Hydrogen gas is also conducted from the blood during its passing through the lungs, generally in combination with oxygen (in the form of vapour), and sometimes uncombined. On these impurities being conveyed from the *venous* blood, the red particles become florid, forming what is termed *arterial* blood. In asthmatic subjects, the lungs, from spasmodic constriction, not performing their office, the fæces are highly charged with carbon, and a considerable quantity of hydrogen gas escapes with them; and these facts certainly go a long way to prove that the liver does cooperate with the lungs in purifying the blood. Another corroborating fact is, that the secretions of both are from *venous* blood. Again, we may observe, that when the duct which conveys the bile into the intestinal canal, is completely obstructed, the bile, which is conveyed by the absorbents of the liver to the mass of blood, is separated from it by the

kidneys, the secretion of which is most unquestionably excrementitious. We may also notice another fact in proof of the bile being an excrementitious secretion, and of the liver acting in concert with the lungs:—the air which is expelled from the lungs of subjects with diseased liver is highly offensive from uncombined hydrogen gas, and highly charged with carbonic acid gas. These circumstances incline us to agree in opinion with Boerhaave, that the bile is an excrementitious secretion.

With respect to its being the "*natural cathartic of the intestines,*" it is, generally speaking, so mild that it cannot chemically act as a stimulus to the muscular coat of the intestines, which perform the peristaltic motion, for it is even incapable of stimulating the membranes which are interposed; besides this, in many cases of jaundice, in which the bile did not pass in the smallest degree into the intestines, we have known the bowels to be as regularly relieved every day as they were previously to the attack of the disease. When considerable irritation exists in the liver or biliary ducts, from a calculus lodged in the principal duct, the bowels are generally constipated; but this is often the case when another organ, either of the chest or belly, is affected with an irritative disease, in consequence of the determination of nervous fluid and blood to the part. That an excrementitious discharge into the intestinal canal may tend to increase the peristaltic motion of the intestines, is, however, not very improbable.

Fourcroy thought that the uncombined soda of the bile, and its saline ingredients, united with the chyle to render it more fluid, whilst the resinous and gelatinous parts of it combined with the residue of the chyme; and this idea, we suspect, Mr. Brodie wished to establish by his experiment on a dog. The result of that experiment was considered by Mr. Abernethy of such little importance, that he has not even alluded to it in the last edition of his work, although published many months after its promulgation. Some physiologists have supposed that the pylorus of the stomach possesses an elective power, and will allow nothing to pass into the duodennm which has not been properly digested, or which is likely to disturb the process of chylification: and we think that those physiologists who have paid particular attention to the sympathies of the body, some of which appear to be independent of nervous connexion, and the power of reparation which exists more or less in every part of the body, will not deny this power to many organs, or that a kind of intelligence exists throughout the body, termed the *vis medicatrix naturæ*, or *vis conservatrix*. The muscles of the gullet seem also to possess an elective power; for in every person the passing of a hard substance, as a bougie, a large pill, or even the end of a probang, generally brings them, and even those by which vomiting is effected, into action, and in some nervous patients they will not admit of a small hard pill to pass into the stomach.

Indeed this kind of intelligence to the philosopher of general observation not only pervades the animal kingdom, but the whole physical world. Now, if we were urged to give an opinion why the bile, if really an excrementitious secretion, should be emptied into the duodenum, where the chyle is formed for the nutrition of the body, we would say, for the purpose of mixing with the residue of the chyme after the formation of chyle, to render it offensive to the mouths of the absorbents, and thereby to prevent its being conveyed to the mass of blood. That it does unite with the refuse of the chyme, is admitted by Mr. Abernethy and other physiologists. With respect to the office of the colon, which we have stated to co-operate with the lungs, liver, &c. in separating impurities from the blood, Mr. Abernethy observes, the *residue* of the alimentary matter, mixed with the bile, passes from the small into the large intestines, and there undergoes a *sudden* change; it acquires a peculiar fœtor, and becomes what we denominate fæces. This change is so sudden, that it cannot be ascribed to *spontaneous chemical alterations* (which would be gradual), but it must be attributed to some *new animal* agency. If the contents of the small intestines at their termination, and of the large at their commencement, be examined, they will be found *totally* different, even within a line of each other; the former being without fœtor, and the latter being, in all respects, what is denominated fæces. Though *chemists,*

then, might speak of the *feculent matter* of chyle (chyme ?) as fæces, yet *physiologists* would rather apply that term to the change in the *residue* of the food, which takes place in the *large* intestines, and which seems to be effected by the vital powers of those organs. "The fæces," proceeds Mr. Abernethy, "quickly suffer chemical decomposition out of the body, although they often remain in the bowels without undergoing the same kind of change. Their chemical decomposition is attended with the sudden formation of ammonia; yet, on examination, when recent, they are found to contain acids, which ammonia would neutralize. The inference, therefore," says Mr. Abernethy, "*naturally* arises, that this third process, I mean the *conversion* of the residue of the aliment into fæces, may, amongst other purposes, be designed to modify that residue, so as to prevent it from undergoing those *various chemical* changes which may prove stimulating to the containing organs, as well as injurious to the general health."

In a perfectly healthy state of the digestive organs, probably *no chemical* decomposition, *even* of the fæces, takes place; yet changes happen, in some degree, without apparently producing any injurious consequences. To *chemical* changes we may *probably* attribute the extrication of *inflammable* air, and the various and unhealthy odours of the fæcal matter which are observable in disordered states of the digestive viscera.

The alteration in the odour and appearance of

the residue of the chyme on entering the colon is not the consequence of any chemical decomposition, or of "the action of some new animal agency," but of becoming mixed with the fæcal secretion of the internal membrane of the colon; and so far from the refuse of the chyme being suddenly and completely converted into fæces on entering the colon, in the contents of the ascending portion of the colon, the residue or rejected part of the chyme with the bile is clearly discoverable from the *true fæcal* secretion of the colon, the former consisting of the refuse of the food, whilst the other is of a thin pulpy consistence; and as the refuse advances into the descending portion of the colon, it becomes more mixed with the true fæcal discharge; but even when evacuated, it is still easily distinguished from the fæcal secretion of the colon on being mixed with water, or on microscopical inspection. In cases of fevers, or of organic disease of the gullet, where a patient can swallow nothing in a solid or thick form, it is common to have copious evacuations of fæces, which can consist chiefly of bile and the fæcal secretion of the colon. As another decisive proof of the fæces not being a "conversion of the refuse of the food into fæcal matter, either in consequence of chemical decomposition and new combinations, or of a *new animal* agency," we may notice the case of a child, which occurred in the practice of Mr. Hallam, an intelligent and experienced surgeon of Walworth Road. This gentleman delivered a patient of a "fine muscular,

fat, and healthy child, but which had an impervious œsophagus, so that no food ever passed into its stomach. The child lived for *thirteen* days, and was so wasted that its skin hung like a loose garment, and could be folded and lapped over its limbs. At first the child discharged the usual quantity of meconium from the bowels, and afterwards had, during *eight* days, one or two *alvine* evacuations, in quantity, colour, and consistence, not distinguishable from the stools of children who take food in the usual manner. After the eighth day the fæcal discharges became more scanty and less frequent, but they continued to the last."

When we noticed, in the 6th Number of the Gazette of Health, the opinion of Mr. Abernethy relative to the sudden conversion of the residue of the chyme after the process of animalisation or chylification in the duodenum into fæcal matter, we attributed the change of colour and odour of the refuse to its mixing with the fæcal discharge of the colon; and this opinion has, we presume, induced Mr. A. to make the following remark in the last edition of his work on the origin and treatment of local diseases:

" The means by which this modification of the residue of the food, which takes place in the *large* intestines, is effected, are but little known. Analogy leads us to refer it to the effects of a *secretion from the lining of those intestines* in which it occurs."

Dr. Hamilton also admits that there is a fæcal

secretion from the large intestines; for in the last edition of his Treatise on Purgative Medicines, he states, " The *residue* of the food which is not adapted to afford nourishment, constitutes a *part* of the fæcal evacuation *which is made directly* from the intestinal canal. It is probable (says he) this fæcal matter is discharged into the more capacious colon, where the ilium enters it by a lateral opening, so contrived that the contents of the colon cannot be returned. These circumstances (continues the Doctor) distinguish the functions of the *smaller* from those of the *larger* intestines, a distinction not commonly noticed."

The complaint termed the *iliac passion,* in which the contents of the colon, in consequence of the peristaltic motion of the intestinal tube being inverted, are ejected from the stomach; and also the fact that by means of Reid's Syringe, warm water may be forced through the colon into the small intestines, prove " that the lateral opening by which the ilium enters the colon" is *not* " so contrived as to prevent the contents of the colon from returning to the small intestines."

We have entered thus fully into the offices of the liver, stomach, colon, and kidneys, with the view of proving that the liver is not of greater importance in the animal economy than any other viscus, nor of such *vital* importance as many other organs, and, consequently, that there can be no just reason for attributing so many disorders or diseases of the other viscera, and local mischief, to

its influence, either in this or in a tropical climate. From the size of the liver, its indolent nature, and its office in co-operating with the lungs, skin, kidneys, and colon, the functions of the liver of a native of England are very likely to be disturbed by the stimulating influence of a tropical climate; but the diseases which are thus excited are of opposite characters, and in some parts of India, organic diseases of the spleen of Europeans are much more frequent than of the liver; and from the idea, which generally prevails among young surgeons who receive appointments in the East or West Indies, remaining unaltered even during a long residence in the climate, there can be no doubt complaints are often attributed to the liver which have no connexion whatever with it. Diseases of the liver are more rare in this country than of any other organ, and we firmly believe its functions are less disturbed by general disorder of the constitution, or by sympathy with a diseased or disordered part, however formidable, than any viscus either of the chest, abdomen, or pelvis.

As to the practitioners of the East and West Indies, very few indeed dare to extend their investigation of any disease beyond the functions of the liver: and of all the reports of tropical diseases, we know of none entitled to the smallest attention, except the Memoir of the State of Health of the 88th regiment, presented by Dr. M'Grigor to the Medical Board of Bombay. As this report shews a mind capable of making just observations

on a broad scale, very rare in the present time, we shall give the substance of it. The Doctor, in describing the diseases which had taken place within one year, from the 1st of June, 1801, expresses a difficulty in stating the *proportion* of cases, in which the liver was really affected. If the cases, where that viscus was of an unnatural colour, where the peritoneal covering was inflamed, or where it exhibited variegated spots, may be termed diseases of the viscus, only four of the patients subjected to examination after death, were free from severe affection either of the substance or of the membranous covering of the liver. In two he found abscesses in the right and left lobes. In one there were small cysts in all the lobes, containing matter. In three the liver was much enlarged, and the blood-vessels over distended with marks of previous inflammation. In one there were abscesses in the right lobe, and in the lobe termed *lobulus spigelii*. In another the abscess was in the lower extremity of the right lobe, including the fissure, with erosion to an extent that must have soon made its way through the coats of the subjacent great blood-vessels. In one case the liver was unusually dark. In another it was of a bright iron colour. In two cases the liver was very small, and harder than natural, but without the gritty feel of a scirrhus. In nearly all the other cases, the liver was larger than the usual size. It sometimes filled both hypochondria, compressing the stomach and spleen, and touching

the ribs of the left side. The weight was not always proportioned to the enlargement. The liver sometimes had a soft feel. In one case, however, where the enlargement was not so considerable, its texture was very firm, and weighed five pounds; here there were marks of inflammation on all the inferior portion of the right lobe. In a case of long standing, there seemed to be more disease than in any other; the *pori biliarii* were full of matter of a consistence between that of serum and pus. There was found an adhesion between the liver and peritonæum in eight cases; but there was an external prominence in only three of them. In one, an incision was made betwixt the 7th and 8th ribs, and the case terminated favourably. In none of the cases did there exist a communication between the liver and the lungs. Of the four subjects where no marks of diseased liver could be seen, two were cases of fever, one of scurvy, who had laboured latterly under *every symptom* of inflammation of the liver; and the fourth had, for four months before his death, every symptom of this disease.

Dr. M'Grigor says, there was in general little disease either in the gall bladder, or biliary ducts. In ten cases the gall bladder was found distended. In one the ductus communis was found impervious. In another, though the gall bladder was not much distended, there were marks of previous inflammation; the vessels of the external coat being turgid, and adhering to the stomach. In ten cases the

gall bladder contained from two to four ounces of bile of different colours, consistency, and probably of different qualities.

The membrane which covers the liver (peritonæum) is also extended over all the viscera of the abdomen; and when it is diseased, we are not to consider it a disease of the viscus which it happens to cover, unless the disease extends to its substance, or, rather, the disease of a viscus has extended to the membrane. The late Dr. Saunders, who we have reason to believe never attended the *post mortem* examination of more than four subjects who had resided in a tropical climate, although the result of his extensive practice no doubt afforded him ample opportunities of doing it, has given a very plausible description of the *variety* of the diseases of the liver to which Europeans are subject, after residing in the East or West Indies. He pictured to his imagination enlarged and diminished livers, soft and hard livers, tuberculated, inflamed and œdematous livers; and after his opponent, Dr. Curry, promulgated his closet system of hepatic medicine, in which calomel is extolled as the grand specific, Dr. Saunders discovered that calomel was as injurious in one disease of the liver as it was beneficial in the other, and of course that it required great experience and minute observation to distinguish the different affections!! The Doctor's work, and those of other Indian practitioners, had the effect of inducing many medical men of this country to suppose, that all diseases to

which Europeans are subject in a tropical climate, originate in the liver; and hence, when a person from the East or West Indies consults a surgeon or medical doctor, after returning to his native country, whatever the nature or seat of his malady may be, it is a thousand to one if he does not refer it to some morbid condition of the liver; and this opinion generally accords with that of the patient, who, during his residence in a tropical climate, became convinced that all diseases must be, in some degree, bilious, or connected with the liver.

An Englishman, soon after his return to his native country from a tropical climate, is very apt to become subject to a disease, diametrically opposite to those which prevail in the climate he has left. After his constitution has been in some degree accustomed to the stimulus of a warm atmosphere, his body becomes languid in an atmosphere of a lower degree of temperature, as that of England. In a tropical climate, diseases are all more or less acute; but in the climate of this country, particularly during winter, autumn, and spring, the viscera of a person who has resided in a tropical climate, becomes so indolent as to require the use of a stimulus to keep up their functions. If a viscus have sustained any mischief from the constant action of a warm climate, it is very likely, in this country, to advance almost imperceptibly till it arrives to an incurable stage. We have not observed that the liver is more frequently the seat of disease than the lungs, stomach,

spleen, kidneys, bladder, prostate gland, colon, or rectum: indeed, we have found Englishmen, who have resided in a tropical climate for some years, a few months after their return to their native country, to be more liable to structural disease of the colon, rectum, prostate gland, and stomach, than of the liver. The seeds of disease generated in a viscus, in a warm climate, advance much more slowly, and are productive of different diseases after a removal to a cold one. The visceral diseases, however, which so frequently occur in tropical climates, may, perhaps, with equal propriety, be attributed to the abuse of vinous and spirituous liquors, and the free use of stimulating condiments or articles of diet, as to atmospherical influence. The complaints of Englishmen, after a residence of a few years in a tropical climate, are generally those of debility; and even those who enjoyed good health during their residence in a tropical climate, often become subject, after their return to Europe, to a train of symptoms and hypochondriacal feelings, in consequence of nervous debility, and of the stomach and intestines not performing their offices. Without the use of a stimulus, neither the stomach nor the intestines will do their duty, but, generally speaking, they require only that kind of stimulus which will obviate costiveness; for if the lower intestines perform their office, the stomach and duodenum will not require the use of a tonic, unless, indeed, the patient be far advanced in years, or his general

health has been so far reduced as to be disposed to dropsy.

For the purpose of keeping up a proper secretion of fæces, and a regular evacuation of them in such invalids, one, two, or three of the following pills may be taken every night or morning, according to their aperient effects:

> Take of alcaline extract of jalap, one drachm; aromatic pill,* half a drachm; dried carbonate of soda, a scruple; oil of juniper berries, twelve drops.—Mix, and divide into twenty-four pills.

If the invalid be subject to irritation in the kidneys, bladder, prostate gland, or in the rectum; or to piles, or erysipelatous inflammation about the anus, the aromatic pill should be omitted, and the mass divided into eighteen pills. In such case, a wine-glassful of the infusion of the buchu leaves may be taken with each dose of the pills, and repeated every morning and afternoon. If the kidneys should not perform their office, this infusion will be a necessary auxiliary to the composition of aromatic pill, &c.

In case the aperient pills of alcaline extract of jalap should not act sufficiently on the intestinal

* This pill is composed of socotrine aloes, guaiac gum, aromatic species, and the Peruvian balsam. The College of Physicians have substituted for this formula, in their last Pharmacopœia, a composition under the name of Compound Powder of Aloes.

canal, the following composition may be substituted for them:

> Take of alcaline extract of jalap, extract of colocynth, Aleppo scammony, of each half a drachm; ginger powder, one scruple; oil of juniper berries, ten drops.—Mix, and divide into twenty-four pills. Two, three, or four to be taken occasionally to unload the intestines, or one or two every night or morning, so as to occasion one copious alvine evacuation daily.

If this composition should not prove sufficiently active, the pills and lavement recommended, page 26, for obstinate costiveness, may be employed. We should prefer increasing the dose of the pills of the alcaline extract of jalap, because they do not disturb the processes of digestion (chymification and chylification), nor hurry the chyle through the small intestines. The pills appear to undergo digestion, no aperient effect being produced till the refuse of the chyme gets into the large intestines, a circumstance of great importance when the stomach and duodenum are irritable, or when they do not properly perform their office. On account of passing through digestion with the contents of the stomach, and of not increasing the peristaltic motion of the small intestines, the effect of increased action of the colon does not generally appear for four or six hours after they have been taken.

If the powers of the system have been much reduced, the indications of which are, general relaxation, loss of appetite, flatulence, costiveness, and swelling of the legs towards night, three tea-spoonsful of the volatile aromatic tincture of bark, noticed page 41, may be added to each dose of the infusion of buchu leaves; and if dropsy has taken place, or if there be symptoms of a tendency to it, either in the extremities, belly, or chest, eight drops of the tincture of muriate of iron, and thirty drops of tincture of squills, may also be added.

If structural mischief has taken place in the substance, either of the liver, the spleen, stomach, colon, rectum, or prostate gland, the use of mercury will be necessary, for there is no other medicine capable of exciting the absorbent vessels of the diseased part, without which effect medicine can only co-operate with diet in propping up the system against the undermining influence of the organic mischief*. This article, as we have already observed, must be very gradually introduced into the

* There appears to be a great sympathy between the kidneys and the absorbent system; for when the action of the kidneys is increased, the absorbent vessels appear to be brought into action; hence, during the exhibition of a diuretic medicine (as the foxglove, squills, buchu leaves, &c.), when it increases the secretion of urine, effusions of serum in the cellular substance of the extremities in the abdomen and chest, often gradually decrease. During diabetes, where the kidneys are in a state of increased excitement, the absorbent system is also active, the consequence of which is, the body becomes exceedingly emaciated. The effect of diuretic medicines, in cases of

habit, so as not to disturb the stomach or nervous system; and as a very small dose often exceeds its intended effect in some irritable habits, its operation, on the nervous system especially, should be most carefully watched. When the stomach is preternaturally irritable, or when acidity prevails in it, it is common for mercury, either in the form of calomel or blue pill, to disturb its functions and to disorder the whole nervous system; but on account of this effect—the mere *primary* action on the stomach, its use is not to be abandoned, the recovery of the patient being dependant on its action on the organic disease after it has passed the stomach*. When the state of the stomach

dropsy, may be attributed to the thin serum of the blood being carried off by the kidneys; but if the action of the absorbent vessels were not increased, the effusion which had taken place would not be removed. If such sympathy does exist between the kidneys and absorbent system, of which we have no doubt, we may readily account for the beneficial effects of foxglove, squills, and the buchu leaves, when administered in conjunction with mercury, and when given with mild tonics in cases of structural disease.

* Mr. Abernethy attributes the beneficial effects of his simple constitutional treatment of local diseases by calomel or blue pill to its *tranquillising* effects on the liver and stomach. Whatever be the condition of the liver, whether its size be increased or diminished, its substance hard or soft, its secretion too small or too large, or its nerves in a state of increased excitement from the irritation of dentition, or from diminished action from debility, mercury, mechanically divided either with a conserve or chalk, or the submuriate of mercury (calomel), is his grand remedy for *tranquillising* the liver, stomach, and duodenum. When a remedy succeeds in curing a diseased or

will not admit of its being introduced into the constitution through it, it may be mechanically

disordered organ by *tranquillising* it, a person of common sense would suppose that the affected part was in a state of morbid irritation, increased action, or vascular excitement. Now in the cases of indurated or thickened liver, from the influence of a tropical climate, we meet with in this country, there is a deposit in its cellular substance, which by compressing its blood vessels and nerves, renders it torpid, or rather paralyses its powers; in such case, would any man attribute the beneficial effects of mercury to its " *tranquillising* influence?" We conceive no practitioner of common sense would prescribe a medicine to *tranquillise* this organ when it is in a state of debility or sluggishness, in consequence of having been long subjected to the stimulating influence of a tropical climate, without any deposit in its cellular substance or disorganization. The fact is, mercury acts beneficially in such cases, by promoting the biliary secretion and invigorating the absorbent vessels, and its beneficial effects on the general health arise as much from its operation on the secreting glands of the intestinal canal and the whole absorbent system, as on the liver. With the followers of the Abernethean system, any amendment of health, during the use of mercury, is considered as decisive of the accuracy of the opinions they had given of the disordered or diseased condition of the liver, as if the medicine acted on no other part of the body besides the liver; and when it fails to produce any salutary effect, or proves injurious, some peculiarity of the stomach or of the nervous system, is urged as a reason for its not operating on the liver! Although no medicine has been more frequently prescribed in this country for the last thirty years than mercury, yet a difference of opinion exists among physicians (not surgeons) as to its medicinal effects, some contending that it is a direct sedative or inirritant, and others that it is a direct stimulus or irritant!! Surgeons, or physicians acquainted with surgery, who are influenced by facts, and hold in contempt the wild theories of physicians *partially* acquainted with medicine, are satisfied that, although it does not act immediately as a stimulus to the sanguiferous system, and

forced into the system by rubbing half a drachm of mercurial ointment into the skin of the inside of the upper arm, or the inside of the thigh, every night.

The cuticle being in some subjects more porous than in others, this mode of exhibiting mercury is not so certain as when it is introduced in small quantities into the stomach, so as not to irritate it or the intestines. Calomel, being a saline preparation of mercury, is very apt to disorder the stomach, and on some irritable subjects to act violently on the intestines, when administered in sufficient quantity to produce the desired constitutional or local action; and as to the blue pill, even Mr. Abernethy, with whom it is a very favourite remedy in affections of the liver, observes, "it is very uncertain in its effects." Indeed, of all the preparations of mercury, except the one

when it acts as an aperient or nauseates the stomach, it reduces the power of the heart and arteries, it uniformly promotes the action of the absorbent system, and, when it enters the system, it operates as a general stimulus, producing slight fever and inflaming the gums and salivary glands. Some physicians of the East and West Indies have noticed the beneficial effects of calomel, administered to the extent of a drachm daily, in cases of dysentery and acute inflammation of the liver and intestines, as a proof of its being a sedative, but, in all the cases in which it proved beneficial, it was administered with opium, and in their conclusions they have, in fact, attributed effects to the former which were produced by the latter; and the cases which terminated unfavourably clearly prove that when the stimulating effects of large doses of calomel are obviated by opium, or the irritation of the stomach and intestines reduced by it, it hastened dissolution.

commonly termed alcalised mercury (mercury with chalk), it is the most uncertain. In the first place, the conserve, in which the quicksilver is mechanically divided, is rarely free from an acid; and when it exists, the mercury becomes more or less saline, and consequently capable of acting violently on the stomach and bowels; and even when it is made with fresh conserve, free from the muriatic acid (often added by the wholesale makers to improve its colour), it will soon undergo a change which will render it acrimonious. Mr. Abernethy says, when the bowels are very irritable, he has found alcalised mercury (mercury with chalk) to *tranquillise* the liver, &c., after the above preparations had disagreed with the patient; but this preparation is equally unchemical, the quicksilver being only coarsely divided with a portion of chalk by triturature, and which is readily separated on adding common water, the chalk having no affinity for the mercury: as for its having a more tranquillising effect than *any other* preparation of mercury, it is the chalk only that quiets the stomach. Being what is technically termed an absorbent, it prevents its purging; and every apothecary, of any experience, must know, that is has the same effect when given in conjunction with calomel, or the blue pill. At the Hereford Infirmary, a blue pill was kept by the direction of the late Dr. Campbell, made by triturating quicksilver in a little Venice turpentine and oil of turpentine, and when so well divided that the smallest

particle was not visible on microscopic inspection, it was made into a mass with Castile soap (previously dried and powdered). This mass keeps in a proper consistence for dividing into pills, readily dissolves and mixes with the contents of the stomach, and in consequence of its promoting the secretion of the kidneys, it acts more beneficially in cases of organic diseases, either of the liver, stomach, or any other abdominal viscus: but the most simple preparation of mercury is that which is sublimed through water, termed the *hydro-sublimed* calomel. The particles of quicksilver in this preparation are not only more minutely divided than in either calomel, blue pills, or any other in common use, but it is also much more mild, and when the object is to introduce mercury into the system without disordering the stomach or intestines, this is decidedly the best. Although this preparation was recommended to the attention of the faculty nearly thirty years since by Mr. Howard, and although it is not dearer than the prepared calomel, we are not aware of its having been prescribed in London by any physician except Dr. Babbington. It is much employed by eminent physicians and surgeons in the country*; and why? because country practitioners, particularly the physicians and surgeons of provincial hospitals, are more alive to the

* The author of the New Medico-Chirurgical Pharmacopœia speaks very highly of this preparation, both as an internal and external remedy, and has given many formulæ for its use.

new discoveries in medicine than a certain class of physicians of London, who seem perfectly satisfied with common routine practice, so long as their fee trade prospers.

It is very common for an invalid, who has returned from a tropical climate with either a diseased or disordered liver, to object to the use of mercury, because he supposes he had given it a *fair* trial; and when mercury, in any form, is proposed as a necessary auxiliary to other medicines, for him, with a long face, to exclaim, "Oh, Sir, I assure you I have taken calomel to the extent of twenty grains daily, till I have been salivated ten times, and even lost nearly all my teeth by its use, and the affection of my liver has not been diminished by it in the smallest degree, but my nervous system has been most terribly deranged by it." Such patients we have always found very intelligent, and we have never met with an instance of one persisting in the resolution he had formed of not taking mercury, after a proper explanation of the intention with which it was prescribed; indeed, on a full and candid explanation of the object, they have steadily persevered in its use until the organic disease be rendered permanently quiescent, or the diseased structure nearly or entirely removed. If such a patient be told that it is absolutely necessary, during the use of stomachic and aperient medicines, to keep up the action of the absorbent vessels of the liver, or of any other part organically

diseased, in order to remove the morbid deposit or structure, and thereby permanently to establish his health; he must indeed be little short of an idiot not to submit to it. The object is to keep a regular fire on the enemy without disturbing the system; for, if the nervous and vascular parts of the constitution be disturbed, the local disease will be aggravated; and hence, instead of such patients being benefited by salivation or mercurial fever in a tropical climate, the local disease is no doubt increased by it. We are to attack the disease with mercury, as the mouse proceeded to liberate the "lion caught in a net;" to go on steadily, and, as Mr. Abernethy observes, *quietly*, and the patient should be satisfied with the treatment so long as his general health improves, although the local disease may appear to be stationary; for he may rest assured, that as long as the health of the body improves, the visceral disease will gradually diminish, so as to be rendered perfectly quiescent, or the viscus restored to health, by the cautious use of mercury. It has been our practice to order four grains of the saponaceous turpentine, or blue pill, to be taken every night during the first week and third week of every month, and to discontinue its use as soon as a copperish state in the mouth, or slight irritation of the salivary glands or gums informed us that it was necessary to discontinue it, in order to prevent a general disturbance of the constitution, especially of the nervous and sanguiferous

systems, which, as already observed, would not only aggravate the local mischief, but disorder the general health.

It is common for the whites of the eyes to become yellow, and the urine to be highly charged with bile, a week or two after taking mercury; and on this account we have known it abandoned, under the idea that it aggravated the affection of the liver; but these appearances are of very favourable import in cases of organic disease of the liver, being proofs of the action of the mercury on the absorbent vessels of the liver.

In languid habits, and in cases of disordered liver from slight organic disease, we have often found the invalid rapidly recover his general health, and the local affection gradually to disappear, during the period of convalescence after mercurial fever and slight salivation; and to the state of system which follows mercurial salivation, after the absorbent system has been brought into action, may be attributed the good effects which have followed the free use of mercury; for, during the progress of convalescence, we have known local disease, which appeared to be increased by the mercurial action, or fever excited in the system, to decrease gradually, till it totally disappeared. During the use of mercury in cases of organic disease of a viscus, the power of the stomach must be kept up, and the fæcal secretion promoted by the medicines recommended, p. 146 *et seq.* It is very common, particularly in cases of organic disease of a viscus,

either of the chest, abdomen or pelvis, for the membranous covering to be inflamed; and as the disease of the membrane is very different to that which has taken place in the substance of the viscus, this is a most unfortunate concomitant, inasmuch as it is often aggravated even by a very small dose of mercury, and never fails to disturb the general health. In such case it is often necessary to abstract blood by leeches, or by cupping, although the patient be in a very debilitated state; but in general a blister over the part, with stimulants to the extremities, the warm or vapour-bath, (to increase the circulation of blood in the skin, &c.) will succeed in dispersing it. After the inflammation or inflammatory excitement is reduced, the sedative plaster of the New Medico-Chirurgical Pharmacopœia*, applied over the region of the affected viscus, we have found very beneficial. When the substance of the diseased viscus or the nervous system is in a state of morbid irritation, or when the patient is of an inflammatory habit, a sedative medicine should accompany the use of mercury, in order to confine its operation to the absorbent vessels, or to obviate its stimulating

* The following is a copy of the author's directions for making this plaster:

Take of strong mercurial ointment, 1 ounce; gum ammoniac, 6 drachms; extract of belladonna, 4 drachms; hydroscyanic acid, 30 drops. Reduce the gum to a fine powder, and with the extract and a little water form a thick mass, then mix it with the ointment and acid by rubbing them well together in a marble mortar.

effects on the disturbed nervous and sanguiferous system, which would increase the general disorder of the constitution, and aggravate the organic mischief. With this view, three or four grains of the extract of henbane, or two or three of extract of hemlock, may be administered about every sixth or eighth hour for a few days previously to the exhibition of mercury, or with each dose of mercury two or three times a day, according to the degree of local irritation, or general nervous or febrile excitement. The directions we have already given respecting the management of the bowels in cases of simple disorder of the liver, stomach, &c., are applicable to disorders arising from diseased structure.

With regard to *substantial* articles of diet, opinions diametrically opposite have been broached by physicians who pretend to have paid particular attention to their effects, not only on their patients, but on themselves. Some contend that *raw* vegetables are the natural food of man; and, if he were to adhere to them, he would not require any kind of fluid;—others assert that the vegetables should be boiled, in order to render them more easy of digestion;—others, that man is a vegeto-carnivorous animal, and when the stomach is capable of performing its office, a combination of meat and boiled vegetables is more readily converted into chyme, than either a meal of vegetables or of meat: but when the stomach is in a state of increased or diminished excitement, a small meal of tender

beef, mutton, or venison, underdone and well masticated, generally agrees best with the stomach, being frequently, in the most disordered stomach, converted into chyme without the distressing effects of heartburn, flatulence, and sense of oppression, which soon follow a meal of vegetables. Whatever be the condition of the stomach with respect to irritation, whether in a state of morbid excitement or of debility, black and cayenne pepper act very beneficially in promoting the digestive process. Some physicians of Italy, who have observed the quieting effects of these articles in cases of inflammatory excitement of the stomach, and gastric irritation, have termed them stomachic sedatives; and others, observing their good effects in cases of indigestion from an opposite condition of the stomach, have bestowed high encomiums on them as peculiar *stimulants**. The appearances of the fæces, on which Mr. Abernethy lays much stress as indicative of the condition of the liver, certainly prove that animal food is more easily digested than either raw or boiled vegetables; for the muscular fibres are very seldom discoverable in them, even in cases of great debility, whilst portions of vegetables, especially

* A physician very subject to indigestion informed us, a few years since, that he had derived considerable benefit from compound essence of cayenne and shallot, which he is in the habit of adding to his fish-sauce, and of using instead of pickles with beef-steaks, &c. It is particularly grateful to the palate, and certainly promotes digestion. Thirty drops are sufficient for a beef-steak.

when taken raw, often pass through the intestinal canal nearly in the same state in which they were swallowed: indeed, no article of food is more indigestible with invalids who have resided some time in a tropical climate than raw vegetables; and the consequence of a common practice of taking a little celery with cheese on the conclusion of a dinner, is frequently a complete interruption of the digestive process, it acting like yeast in exciting fermentation, the productions of which are flatulence, eructations, heartburn, and often in gouty subjects violent spasms.*

With respect to the *quantity* of food, Mr. Abernethy says, " It would be well if the public would *digest* the writings of L. Cornaro, who having *naturally* a weak constitution, which he seems to have ruined by intemperance, so that he was expected to die at the age of thirty-five, did at that period adopt a strict regimen, allowing himself only twelve ounces of food daily;" by this plan of diet he lived to more than one hundred years: " and it is," says Mr. Abernethy, " delightful to

* The water-cress is held in such high estimation as a purifier of the blood in France, both by the medical profession and the public, that during spring it constitutes a part of every meal. In cases of indigestion, or when the stomach, from debility or increased excitement, does not perform its functions, the article either runs into the acetous fermentation, or passes off undigested, when, instead of purifying the blood, it increases the impure state of it, by disturbing the process of chymification. The same may be said of other green vegetables taken raw, which are esteemed for some supposed antiscorbutic properties.

observe, the *tranquil*, cheerful, and energetic state of mind accompanying his bodily health, and in a great degree induced by it. Cornaro found that as the powers of his stomach declined with the powers of life in general, it was necessary he should diminish the quantity of his food, and by so doing he retained to the last the *feeling* of health." To illustrate the advantage of this mode of living, Mr. Abernethy has annexed the following case of a Quaker.

"I could relate many instances of persons who were much emaciated, some of whom were of considerable stature, becoming muscular and fat upon four ounces of the most nourishing and easily digestible food, taken three times a day. A patient lately gave me the following account of his own proceeding with respect to diet. He said, When thou toldest me to weigh my food, I did not tell thee that I was in the habit of weighing myself, and that I had lost 14lbs. weight per month, for many months before I saw thee. By following thine advice, I have got rid of what thou didst consider as a very formidable local malady; and, upon thy allowance of food, I have regained my flesh, and feel as competent to exertion as formerly, though I am not indeed so fat as I used to be. I own to thee, that as I got better, I thought thy allowance was very scanty, and being strongly tempted to take more food, I did so; but I continued in the practice of *weighing* myself, and found that I regularly lost

weight upon an *increased* quantity of food; wherefore I returned to that which was prescribed to me."

The experience of ages, both of medical and non-medical men, has proved the truth of the old adage, 'what is one man's food is another man's poison;' and this applies not only to the quality or nature of food, but also to quantity. We have met with invalids who have become corpulent with a very small allowance of animal and vegetable food, and others who required three hearty meals of animal food daily to support the vital powers, and who, on reducing the quantity, experienced an intolerable feeling of general debility and depression of spirits. In some subjects the power of sanguification is so great, that they become plethoric during the use of small meals of the most unnutritious food. A gentleman of Walworth, strongly predisposed to apoplexy, although he avoided animal food and stimulants, and selected from the vegetable kingdom the articles which afforded the least nutriment, was under the necessity of losing twelve ounces of blood every fortnight for many months, to keep off a fit of apoplexy, and within the last six months of his life he found it necessary to lose the same quantity of blood weekly; and notwithstanding active preventive means were adopted on the occurrence of a symptom of approaching apoplexy, he fell a sacrifice to the disease. The sanguiferous system became overloaded with blood, a vessel of the brain gave

way, and the effusion of blood produced fatal apoplexy. The fact is, the power of sanguification, which, one would suppose, must greatly depend on chylification, is much greater in some individuals than in others; and, consequently, in one, two pounds of meat will produce no more blood than as many ounces in the other;—not, as Mr. Abernethy asserts, in consequence of the stomach not being able to digest the larger quantity, but from a peculiarity of stomach, or from some peculiar state of the power of sanguification with which physiologists are unacquainted; for if such persons be put on a low diet, their digestive organs, instead of becoming more vigorous, as in the case of Cornaro, or Mr. Abernethy's *Quaker*, will partake of the general debility of the system from the want of nourishment, and many thousands have been hurried to their graves by following the dogmatical advice of narrow-sighted theorists, in adopting a diet contrary to their own inclinations, or, as Mr. Abernethy observes, "feelings of health."

With respect to the propriety of drinking during a meal, Mr. Abernethy observes, "water is the *only* diluent, and we are in the habit of mixing *alimentary* articles and stimulants with it. Diluents *probably*," continues he, "ought not to be taken during or immediately after a meal, since they would be likely to render the juices of the stomach less efficacious in the digestion of the food. Hunger and thirst seem to be incompatible sensations: an hungry animal would eat to satiety, and

the *stimulus* of the food would bring on a discharge of the juices of the stomach, which have the power of digesting the food; nor is it probable that the sensation of thirst would be experienced till this operation of the stomach is effected." "If then," says Mr. Abernethy, "the sensation of thirst occurred, water would appease it, without *frustrating the digestive functions*; and *being absorbed from the alimentary canal, a* CERTAIN *portion of it would be furnished to the blood*, and *the* SURPLUS *would pass off from the lungs, skin, and kidneys*."

Some theorists, who are chiefly celebrated for prolific powers of imagination, finding that, in rabbits, the gastric juice acts on the surface of the contents of the stomach, and gradually passes into the mass, conclude, that a liquor taken during a meal must act injuriously by diluting the gastric secretion; but there is a great difference in the process of digestion in a graminivorous animal and that of man, the stomach of the latter being supplied with muscular fibres, for the purpose of agitating and mixing the food during digestion, so that the gastric juice, instead of acting on the surface of the food and passing gradually through it, is diffused throughout the mass, and the conversion of food into chyme is no doubt facilitated by this churning process. When a person, particularly one with a weak or irritable stomach, makes a meal of animal and vegetable food without a beverage, he feels a sensation of the stomach being overloaded, in consequence of the contents being

too thick to be churned by the muscular fibres, which is generally removed by a draught of a simple *or* stimulating beverage, according to the state of the stomach, as to debility or excitement, although it increases the distension. Invalids, whose stomachs have been accustomed to the use of vinous or spirituous liquors, absolutely find it necessary to take a stimulating beverage during dinner, to remove a distressing sense of oppression. The moderate use of a beverage during dinner, in our opinion, instead of occasioning indigestion by diluting the gastric juice, acts beneficially, by separating the fibres of meat, &c. and exposing them to its action, and the contents being rendered thinner, the muscular coat more easily performs its churning office.

As to the idea of a *certain portion* of the water taken during or after a meal being furnished to the blood, and the *surplus* passing off from the lungs, skin, and kidneys, it is ridiculous; for it must be conveyed to the mass of blood to escape by these organs, and we presume considerable quantity of it is evacuated with the fæces. The invalid, after the age of forty or forty-five, who has been exposed for some years to the stimulating influence of a tropical climate, or the free use of vinous or spirituous liquors in England, will find, on following the advice of Abernethy, by abandoning the use of a beverage during dinner, his stomach will not perform its office; he will, sooner or later, experience hypochondriacal feelings, in

addition to his sufferings from indigestion, &c.; and, if he should persevere, he will probably discover that his vital powers have given way, and that the symptoms of local or general dropsy predominate. Of this we are certain, that many invalids from the East and West Indies, who have been induced to suppose that their general health was suffering from organic disease of the liver, have been hurried to their graves by suddenly abandoning their habit of taking a moderate quantity of spirituous or vinous liquor, or of a stimulating or diluting beverage, during dinner. The only distinction invalids who have resided in a tropical climate, or have indulged in the excessive use of cordials, have to make, is the quantity or strength they require to keep up the *vital* powers, and that which will stimulate the nervous system, and accelerate the circulation beyond the standard of health. If an invalid has been in the regular habit of indulging in an excessive use of wine or spirits, the effects of which, by accelerating the circulation and disordering the stomach, must necessarily, in a short time, undermine his constitution, it would be highly culpable to persevere in the practice; he should, however, relinquish it very gradually, in order that the system may not feel its loss, unless, indeed, *active* disease has taken place in an important organ, as the stomach, lungs, liver, &c., when it may be necessary to abandon it entirely.

Wine drinkers not taking wine after *every* meal,

Mr. Abernethy says is a proof that wine is not necessary to their digestion. If they do not take *wine* during or after the morning or evening meal, they certainly take plenty of *liquids*, and these meals are generally so light and small in quantity, that the stomach, even of an inebriate, is equal to the digestion of them without the aid of wine; but dyspeptic invalids, who take supper, generally find it necessary to indulge in a glass of some slight cordial after it, as weak brandy and water, and which, by *tranquillising*, the stomach and nervous system, often succeeds in procuring refreshing sleep, and, indeed, some nervous subjects cannot sleep without it.

In France it is the general practice to take wine *during* and not *after* dinner; and the great relief it affords, not only to an oppressed stomach, but general gratification to the whole system, or to the "feelings of health," are much stronger arguments in favour of the practice than the silly one Mr. Abernethy has adduced against it. We speak of its *proper* use; in cases of debility; and as to the *quantity* which constitutes a *proper* use, no practitioner can lay down a rule applicable to every case of general weakness. The best advice is to regulate it by its effects, and leave off when it begins to exhilarate the mind or to excite the system; and this effect often depends not only on the state of the system at the time, but also on the density or some other condition of the atmosphere.

Speaking of vegetable diet drinks, Mr. Abernethy observes, "they appear to be useful in tranquillising and correcting the disorders of the stomach and bowels; for this," says he, "is the manner in which they seem to be efficacious in the cure of local diseases. The vegetables prescribed in the different formulæ are so dissimilar, (says he,) that I cannot suppose that they act *specifically* upon the local disease; for even sweet-wort has obtained considerable celebrity." Diet drinks of this country differ very little from the tisanes of France, where they are prescribed, even by the most eminent physicians, to the extent of two or three quarts daily, to purify the blood; and they are also such favourites with the public, that invalids, whatever their complaints may be, take no other remedy, under the ridiculous idea that their disorders depending on a foul condition of the blood, it can be of no use to take other medicines until it be corrected. They all contain a small proportion of mucilage; and to the diluting effects of the water we are disposed to attribute the benefit they often produce in cases of irritation or inflammatory excitement of membranes.

The decoction of sarsaparilla, so much recommended by Mr. Abernethy to *tranquillise* the stomach, and thereby to correct local diseases, appears, on chemical examination, to contain nothing but mucilage; and in those cases where a mucilaginous decoction is proper, it is less effica-

cious than the decoction of marshmallow-root or infusion of linseed. As it must pass through the process of digestion, it seems to us somewhat inconsistent to order half a pint or a pint of it to be taken three or four times a day, after laying down a system of diet, the object of which is not to fatigue the stomach. With respect to the powers of the decoction of sarsaparilla in tranquillising the stomach and correcting the constitution, we have never met with a case of indigestion from diseased or disordered liver, or from debility, in which it did not distress the stomach, and, by relaxing this organ, we have very frequently observed invalids, who were taking it under the direction of Mr. Abernethy and others, to become emaciated, and their stomach, bowels, and muscular system flabby; and in those countries where diet drinks are held in great estimation, as sweeteners of the blood, or correctors of a vitiated constitution, diseases of the stomach and bowels (similar to those of which pigs frequently die that are kept by brewers on grains and stale beer, or sheep in marshy countries), are more prevalent than even pulmonary consumption (termed by some French writers the English malady,) is in this country.

In cases of indigestion from nervous excitement of the stomach, a diet drink often proves beneficial, by cooling the stomach, and by diluting its contents; but in such cases it possesses no advantage over common water, and, according to the reports of Dr. Lambe and others, is less beneficial than

water rendered pure by distillation, or the water of the holy well of Malvern, which is celebrated for its purity, and which, indeed, has succeeded in curing local diseases, scrofulous, or what may be termed scrofulo-cancerous, after diet drinks, instead of producing any corrective effects, had evidently debilitated the stomach. If diet drinks act only as diluents, as some imagine, surely it is better to employ such correctives as will not, like the diet drinks, fatigue the stomach, or waste the secretion of the gastric glands by passing through digestion, as distilled water, or the Malvern water.

Not only should the stomach be *tranquillised* by medicine, and by proportioning the quantity of food to its digestive powers, but the whole body, when the stomach is engaged in performing its digestive operation. As instinct is a better guide than reason, Mr. Abernethy recommends his patients, after a meal, "to imitate animals, who rest during the digestion of their food, and drink when it is accomplished;" and, as they frequently observe an horizontal position, Mr. A. generally indulges in a nap in that state immediately after dinner. If these said animals were erect like man, instead of lying down during digestion, they would probably observe a sitting posture. A nap for ten or fifteen minutes in a chair, to those who become drowsy after dinner, and to nervous subjects in particular, has generally a beneficial effect in quieting the system; but when taken in an horizontal position, the vessels of the brain are so overloaded with blood,

as to occasion stupor and a sense of general debility, and even to disturb digestion; and in subjects predisposed to apoplexy, "a close imitation of the practice of animals" after a meal might produce a fatal fit. It is on this account that full suppers are so much condemned by the most experienced writers, or rather the numerous facts of subjects in an apparent healthy state, disposed from original formation to apoplexy, having been found dead in their beds, after retiring with a full stomach. Invalids from diseases of the liver, particularly those who have resided in a tropical climate, are very subject to congestion of the blood-vessels of the brain, not from increased influx or determination of blood to it, as stated by some writers, or of general plethora, but from the return of blood being impeded by the mechanical effects of a diseased liver, and in those the "animal practice" would prove very injurious.

When the stomach is in a state of debility, a mild aromatic should be taken with the breakfast meal. It is a common practice with gouty subjects to add a few grains of finely powdered Jamaica ginger to tea; but as tea acts injuriously on the nerves of the stomach, and affords no nourishment, we have been in the habit of recommending a farinaceous nut sold under the name of the Sassafras Nut. It not only imparts to boiling water a nutritious substance, but also a pleasant aroma, possessing all the stomachic virtues of sassafras. The ground nuts are used in the same manner as

ground cocoa, with sugar and milk. This article may also be taken for supper.*

The warm water or vapour-bath twice a week, and the use of flannel next the skin, by promoting the circulation, and of course the sensible and insensible perspirative secretions of the skin, are powerful auxiliaries to medicine in cases of disordered or diseased liver, stomach, or any other viscus, especially in invalids who have been much exposed to a tropical climate. Some practitioners have recommended the use of wash-leather instead of flannel, to be worn next the skin; but a great objection to it is, by retaining perspirable matter, it becomes so moist after exercise as to stick to the skin, and produce a sensation of cold on taking rest. Some intelligent gentlemen from the East Indies have assured us, that they have found the flannel waistcoat next the skin more beneficial in keeping up a regular temperature, when covered with black silk; and, we know some invalids, after adopting it, to continue free from gouty and rheumatic pains, to which they had been previously very subject.†

* It may be procured at the Medical Hall, 170, Piccadilly.

† Physicians, ancient and modern, differ much in opinion as to the propriety of wearing flannel next the skin in a variety of diseases, and during certain degrees of temperature of the atmosphere. Some modern writers condemn its use altogether, contending that when worn next the skin three or four years, it renders the body tender, and very susceptible of atmospherical changes.—Flannel possesses a property which linen does not; being a bad conductor of the matter of heat, it retards the

The galvanic fluid passed through the abdominal viscera has no doubt proved very beneficial

escape of the natural heat of the body to the atmosphere during cold weather, and *vice versâ.* During warm weather, it certainly increases sensible and insensible perspiration; but wool not being absorbent, and the interstices of the flannel not close, evaporation of the secretions of the skin is not impeded, and in consequence of this evaporation, the temperature of the skin and of the interior of the body does not run higher during the hottest days of summer, than during the coldest days of winter. In a climate so fickle as that of this country, often varying in temperature more than fifteen degrees in the short period of twelve hours, the use of flannel next the skin is a most important preservative of health; especially in persons who are predisposed to consumption, or subject to asthma, catarrhal cough, rheumatism, gout, bowel complaints, or any visceral disease, either acute or chronic. In irritative or inflammatory affections of the skin, its mechanical action is apt to aggravate the complaint, but even in such cases it may be worn over very fine linen with great advantage; for by keeping up the sensible and insensible perspiration, it prevents obstructions in the glands or pores of the skin, which are common causes of numerous cutaneous eruptions, and inflammatory affections. Some physicians recommend their consumptive and rheumatic patients to wear flannel next the skin, only during the daytime; but its use during the night, in such cases, is equally important. Linen scarcely increases the secretion of the skin, having little mechanical action on it; and when the skin perspires from exercise, or from heat of atmosphere, linen absorbs the matter, and by remaining moist, especially on taking rest after much exercise, it is very apt to disorder the general health, or occasion catarrh or rheumatism. Flannel, therefore, like tea to hypochondriacal ladies, keeps the body warm during cold weather, and cool during warm weather.

A late writer recommends the chamois leather, as a preventive of, or a remedy for rheumatism, &c. &c. in preference to flannel. The chamois leather greatly differs in all the

in cases of indolent bowels and of diminished secretion of bile; but when organic disease has taken place in a viscus, or when inflammatory excitement exists, or the nervous system is too

essential points from flannel. In the first place, it is a soft application, whereas the flannel is somewhat rough, acting continually, in a small degree, like a flesh-brush, by which it promotes the circulation in the skin, and consequently its secretions. The chamois leather, again, is of close texture and possesses an absorbent quality; and the perspiration not passing through it with such facility as through flannel, or even through linen, it becomes moist; and it is worthy of notice, that when in that state, its temperature is, in some degree, lower than that of linen, in the same state, on the same person. The chamois leather is as good a conductor of the matter of heat as linen; whereas flannel, if not a non-conductor of heat, is certainly a very bad one. In all the cases in which we have known the chamois leather worn, it has produced clusters of irritative eruptions of the skin. On what principle a physician can recommend this leather as a more salutary article of dress than flannel, we are at a loss to surmise.

With respect to the objection made by some physicians to the continued use of flannel next the skin, viz. that it renders the body too susceptible of atmospherical vicissitudes, the effect is, unquestionably, the consequence of neglect in washing the body with cold water, once or twice a week, or of the use of the cold-bath. It is a very erroneous idea, that on adopting the use of flannel next the skin, ablution with *cold* water or *cold* bathing is improper; for, on the contrary, they both contribute in promoting its salutary operation on the general health, and assuredly will prevent the morbid degree of tenderness of the system, which is apt to take place during the use of flannel next the skin, where they are neglected. The addition of black silk may promote the efficacy of flannel in cases of gout and rheumatism, in consequence of being a non-conductor of the electric fluid.

susceptible of impressions, it is very likely to do much mischief. When the bowels are evidently in a debilitated state, the abdominal bandage, described in Vol. III. of the Gazette of Health, by supporting the integuments, is an important auxiliary to medicine, and in far advanced cases of indigestion may prevent effusion of serum, or dropsy. The bowels should not be so much compressed by it as to impede the circulation by compressing the blood-vessels, the consequence of which would be a determination of blood to the head; which in a person predisposed to apoplexy might produce serious mischief. It should also be slackened after dinner.

Inhalation of vital air (pure oxygen) to the extent of a gallon twice a day has proved beneficial in cases of diseased liver, probably by conducting more carbon and inflammable gas from the blood than atmospheric air does. It has uniformly the effect of correcting the fœtor of the breath, which is always more or less attendant on organic disease of this organ. The sea-air, which is certainly more pure than that of an inland country, being nearly free from carbonic acid gas, has a similar beneficial effect. Mr. Abernethy, speaking of pure air, observes, "patients under the irritation of local disease, who scarcely eat or sleep in town, recover their appetite, digestion and sleep so suddenly on their removal into the country, as to leave no room for doubting that the

change of air has produced this beneficial alteration in their health."

On the necessity of exercise, Mr. Abernethy makes the following observations.

"Whenever circumstances would permit, I have recommended the patients to take as much exercise as they could, short of producing fatigue; to live much in the open air; and, if possible, not to suffer their minds to be agitated by anxiety, or fatigued by exertion. The advantages of exercise, upon which disorders of the digestive organs in general so greatly depend, appear to me very striking. Many people, who are extremely irritable and hypochondriacal, and are constantly obliged to take medicines to regulate their bowels whilst they live an inactive life, no longer suffer from nervous irritation, or require aperient medicines, when they use exercise to a degree that would be excessive in ordinary constitutions. The inference which I draw from cases of this description is, that nervous tranquillity is restored in consequence of the superfluous energy being exhausted by its proper channels, the muscles. When, on the contrary, the nervous system is weak and irritable, exercise seems equally beneficial; but caution is here requisite as to the degree in which it should be taken. A weak and irritable patient may not be able to walk more than half a mile without nearly fainting with fatigue on the first day of the experiment; but by persevering

in the effort, he will be able to undergo considerable muscular exertion without weariness. Does not this imply a considerable increase of bodily strength, and is not the acquisition of strength the chief desideratum in the cure of many disorders? The nervous irritability, also, when dependant on weakness alone, will proportionably diminish with its cause. In the latter case, the nervous energy seems to be augmented in consequence of increasing the demand for it. I am induced to make these observations, from a belief that exercise is not employed as a *medical* agent, to the extent that its efficacy seems to deserve; of its *medical* effects I entertain a high opinion; it is, however, right to direct patients with regard to its use, not to exert themselves for some time previously to a meal, nor for three hours after. I would prescribe to my patients the following rules: they should rise early when their powers have been refreshed by sleep, and actively exercise themselves in the open air till they felt a slight degree of fatigue; they should rest one hour, then breakfast, and rest three hours, in order that the energies of the constitution should be concentered in the work of digestion; then take active exercise again for two hours, rest one; then taking their dinner, they should rest for three hours, exercise two, rest one, and take their third slight meal. I do not allow the state of the weather to be urged as an objection to the prosecution of measures so essential to health, since it is in the

power of every one to protect themselves from cold by clothing, and the exercise may be taken in a chamber with the windows thrown open, by walking actively backwards and forwards as sailors do on ship-board."

When the abdominal viscera are in an indolent state, riding on a horse, by exercising the viscera, and by engaging the mind, will prove more beneficial than walking or riding in a carriage with easy springs; but if an organ be disordered by inflammatory excitement, or by far advanced organic disease, or if the bladder or rectum be affected with irritative or active disease, the exercise of walking or sailing should be preferred. Corporeal exercise will not succeed in improving the general health, unless the mind be pleasantly engaged or brought into action; indeed, corporeal exercise, and visits to watering places, operate on the general health as much, if not more, through the medium of the mind, than directly on the body; and the patient who takes exercise reluctantly, or does not bring his mind into action as well as his body, generally experiences more fatigue than benefit from it. The mineral waters of Cheltenham, and of other fashionable watering-places, have had the credit of cures which were effected by exercise, mental amusement, early rising, and regular meals, and without them the saline aperient waters, in diseases of the liver, stomach and intestines, would most probably have proved injurious. The observations we have made

on these waters and aperient salts, in cases of constitutional costiveness, are equally applicable to disorder or disease of any part of the abdominal viscera.

The nitro-muriatic bath, which has been highly extolled by some practitioners of the East Indies as a remedy for "diseases of the liver and bilious complaints," we have never known to afford the slightest relief, but have met with many cases in which it proved very injurious, by disordering the brain and bowels.

A M. Daubenton has extolled ipecacuan powder, in the small dose of one or two grains, as a remedy for indigestion or diseased liver, of elderly people, particularly when accompanied with phlegm about the upper part of the gullet, the palate, or in the stomach, and in such cases we have known one grain taken at bed-time to prove beneficial in carrying off redundant phlegm. Ipecacuan, by irritating the internal lining of the stomach and gullet, occasions it to throw off the phlegm or slime that may be adhering to it, so that it may pass off with the chyme. It may also afford relief by producing a less adhesive secretion, and by diminishing the quantity, by occasioning a determination of blood to the surface of the body, and increasing the secretions of the skin. In elderly people of languid constitutions, or of leucophlegmatic habits, or disposed to dropsical swellings of the legs, this medicine, by nauseating the stomach, has, in a few days, induced such a degree of general

debility, that even the most powerful stimulants have failed to produce any salutary effect, the patients generally complaining of having no rallying power.

We were lately told by an elderly gentleman, whose stomach and general health had very much suffered from a long residence in a tropical climate, that he had experienced considerable benefit from keeping his warm hand over the region of the stomach after a meal for half an hour. He supposed that the support and warmth the hand afforded, increased the vigour of the stomach. He also observed, that he was in the habit of taking a lavement of Scotch broth three times a week, to diminish, as he said, "the fatigue of the stomach."

CHAP. XV.

COSTIVENESS OF ASTHMATIC SUBJECTS.

Distension of the bowels by fæces, and by gas, is a very common exciting cause of the asthmatic paroxysm, and never fails to oppress asthmatic subjects. True asthma is so much dependant on a disordered state of the bowels, and languid circulation through the abdominal viscera, that every asthmatic is aware of the necessity of paying attention to them. A full dose of an active purgative medicine, unless there be a determination of blood to the head, sometimes brings on an asthmatic paroxysm, probably by disturbing the nerves of the stomach, diaphragm, &c. A mild dose of a warm active aperient to obviate costiveness, or to produce two motions daily, is generally very beneficial. We have known asthmatics escape a paroxysm for many years, by keeping the bowels in a regular state by means of an aromatic aperient.

The following composition we have found the most successful in obviating costiveness of asthmatics:

Take of the aromatic pill, 1 drachm; squill pill, half a drachm.—Mix and divide into twenty pills; two or three to be taken twice a day.

If the patient cannot swallow medicine in the form of a pill, which is a common case with asthmatics (from morbid irritability of the muscles of the gullet and excitement of nerves), the following mixture may be substituted for the pills:

Take of compound decoction of aloes, 6 ounces; compound tincture of senna, 1 ounce; tincture of squills, 3 drachms.—Mix; three table-spoonsful to be taken occasionally.

If the patient be advanced in years, or much debilitated, or if the legs swell towards night, or are cold or œdematous, and the skin pale, half a drachm of the carbonate of iron, or oxyphosphate of iron, may be added to the above composition, and the mass divided into twenty-four pills, of which three may be taken twice a day.

When the breathing is very difficult, or the lungs oppressed with symptoms of an approaching paroxysm, two or three tea-spoonsful of the oxymel of colchicum seeds, with forty drops of Hoffman's anodyne, may be taken in a little cold water, or three table-spoonsful of the following mixture, two or three times a day.

Take of oxymel of colchicum seeds, 1 ounce and a half; Hoffman's anodyne liquor, 3 drachms; camphorated julep, 6 ounces; prussic acid, 6 drops.—Mix.

It is worthy of remark, that asthmatics in general, like gouty and rheumatic subjects, derive most benefit from a purgative medicine, when the motions are dark, and emit a strong excrementitious odour like hydrogene, and when much gas escapes with them.

Galvanism, which has lately been highly extolled as a remedy for asthma by some physicians of England and France, we have known frequently tried, both during the paroxysm and as a preventive during its absence, but in no case did it afford any essential benefit. Oxygene inhaled to the extent of two or three gallons, once or twice a day, generally proves very beneficial—diminishing the violence and considerably shortening the duration of the paroxysm, and keeping off a recurrence for many weeks together. M. La Beaume informs us, that he has found galvanism very beneficial in cases of asthma, attended with obstructions of the liver, indigestion and costiveness.

CHAP. XVI.

COSTIVENESS OF INVALIDS SUBJECT TO CONSTITUTIONAL OR WINTER COUGH.

HABITUAL or chronic cough, in consequence of the fickleness of the climate, is a very common complaint in this country. It is dependant on an irritable condition of the membrane of the windpipe and its ramifications (the bronchiæ), which renders it susceptible of such changes in the atmosphere that check the secretion of the skin, or stimulate the membrane during respiration. This cough is termed, by Dr. Buxton and others, "winter cough;" but it is not only excited by a *cold*, but also by a *warm* air; and those who are subject to it, often suffer more from it during the warmest days of summer, than the coldest of winter; and it very frequently recurs when the air flows from the east, north-east, or south-east, even when its temperature is between the two unfriendly degrees. The cough, on its commencement, is generally dry, and not unfrequently attended with a sense of oppression, or spasmodic stricture about the upper part of the windpipe,

resembling asthma; particularly when the membrane of the cavity of the larynx is in a state of inflammatory excitement. The irritated membrane, in a day or two, secretes a considerable quantity of mucus, which, on being expectorated, affords considerable relief; after which, the paroxysm of coughing and pain is only in proportion to the quantity and tenacity of mucus, *i. e.* as soon as the windpipe and its ramifications are cleared, the paroxysm ceases, and the respiration becomes comparatively easy.

The object of practice in this species of cough, is clearly to reduce the irritation of the internal lining of the windpipe, &c. and to keep it in a quiet state, so that it may be unsusceptible of the action of unfriendly vicissitudes in the air. To those who are aware of the effects of constipation, viz. undue determination of blood to the head, distension of blood-vessels of the chest, &c., the importance of keeping up the peristaltic motion of the intestinal canal must be obvious. Those who are subject to this cough, are well satisfied of the advantage of an aperient medicine occasionally, to relieve the bowels (*i. e.* when the vessels of the lungs or brain are evidently overloaded), and of taking a small dose *regularly* every day, to obviate costiveness, from generally finding confined bowels to precede a recurrence of the complaint.

Although an aperient medicine, by promoting the circulation of blood in the viscera of the belly and in the lower extremities, and occasioning a

determination to them of nervous fluid, generally succeeds in quieting the membrane and removing congestion of the blood-vessels of the lungs, so as to prevent a recurrence of cough, it is good practice to add to it such articles that directly allay irritation of the membrane, and occasion a healthy or mild secretion of the membrane; as the following composition:

> Take of alcaline extract of jalap, half a drachm; extract of hedge hyssop*, one scruple; gum ammoniac, half a drachm.—Mix. Two or three to be taken every night at bed-time, or two twice a day, so as to produce one or two alvine evacuations daily.

If the skin should be hot and dry, or if it should not properly perform its office (perspiration), five or eight grains of ipecacuan powder may be added to the above mass.

For the purpose of emptying the intestinal canal, when the state of the head or chest renders it necessary, two or three of the following pills may be taken:

> Take of alcaline extract of jalap, one drachm; compound extract of colocynth, half a drachm. —Mix, and divide into twenty pills.

* This extract, in the dose of four grains, not only more effectually allays irritation in the windpipe than any other anti-irritant, but has the important advantage of not checking the aperient effects of the extract of jalap, and, unlike other quieting medicines, it promotes expectoration.

As auxiliaries to this treatment, we may particularly notice the application of a stimulating plaster over the breast-bone (as the euphorbium, or camphorated Burgundy pitch), flannel next the skin, and the occasional use of the warm vapour-bath when the skin is inactive.

When the system of blood-vessels is in a state of plenitude, or when coughing produces giddiness, confusion of mind, or pain in the head, abstraction of blood from a vein of an arm will be proper; and, in case of pain in the chest, it will be prudent to apply a blister between the shoulders, or over the seat of pain. When a person who has been subject to this species of cough many years, has arrived to the age of fifty, such changes often take place in the substance of the lungs (as formation of peculiar small tubercles of an indolent nature, or ossifications of blood-vessels) which tend to impede the circulation of the blood through them. The distension or congestion of blood-vessels, which ensues, gives the patient the idea that the air-vessels are clogged by phlegm, and that they should experience considerable relief if they could freely expectorate. In such cases, an emetic generally affords considerable relief, by bringing the diaphragm, and other muscles concerned in conveying air from the lungs, so violently into action, as to compress the lungs and mechanically to force the blood through the vessels, and convey the mucus that may be lodged in the small air-vessels into the bronchiæ, or the windpipe, when it is easily

expectorated. For this purpose, the following draught (emetic) may be administered:

> Take of ipecacuan powder, one scruple; vinegar of squills, one drachm; water, one ounce.—Mix.

The following mixture, in the dose of two or three table-spoonsful two or three times a day, we have found very beneficial in this stage of habitual cough:

> Take of gum ammoniac emulsion, six ounces; tincture of lupulin, three drachms; tincture of squills, three drachms; spirit of sal volatile, three drachms; paregoric elixir, four drachms.—Mix.

If the patient be troubled with symptoms of indigestion, particularly flatulence and loss of appetite, the emulsion of gum ammoniac may be made with an infusion of cascarilla bark, or of horehound. The free inhalation of the vapour of boiling tar is often very beneficial when the vessels of the lungs are overloaded from debility, and when there is a deficiency of expectoration. It not only removes congestion of blood-vessels, by stimulating the pulmonary artery, &c., but increases the secretion of mucus from the membrane of the windpipe, and facilitates expectoration. That it may produce these effects, a deep inspiration should be made with it, in order to expose as much of the internal surface of the air-vessels and cells to its action, as

the patient is capable of doing. Another advantage arising from this remedy is, that it allays the irritation attendant on superficial ulceration in the membrane of the windpipe, the larynx, bronchial branches, &c., which very often takes place during the progress of the cough, and is a common cause of its severity and continuance*. During this stage it is of very great importance not only to obviate costiveness, but to keep up the secretion of the kidneys, in order to carry off the redundancy of serum in the blood, which would otherwise be effused in the cavity of the chest, belly, or cellular substance of the extremities, and hasten the last stage.

With the view of obviating costiveness, one, two, or three of the following pills may be taken once or twice a day, so as to produce one fæcal evacuation daily:

* These ulcerations are frequently attended with such a degree and extent of irritation as to disturb the whole system, and keep up an irritative fever, with hectic symptoms; and we suspect that the cases of pulmonary consumption, which have been published as cured by tar vapour and the terebinthinate balsams, were of this kind. Pus in the mucus, expectorated during membranous ulceration, may, on microscopical examination, be detected (and it is also frequently more or less streaked and mixed with blood, as in pulmonary consumption) from dead or decomposing tubercles, and from small scrofulous suppurations in the substance of the lungs; but it always has a sweetish or saltish taste: whilst, in the tubercular species, it has a putrid taste and smell, and in the scrofulous it is generally tasteless and inodorous.

Take of alcaline extract of jalap, one drachm; oil of juniper berries, eight drops; rhubarb powder, sufficient to form a mass. To be divided into middle-sized pills.

If the kidneys, during the use of these remedies, should not perform their office, the following mixture may be substituted for that of the gum ammoniac emulsion:

Take of infusion of buchu leaves, six ounces; oxymel of squills, six drachms; sweet spirit of nitre, three drachms; paregoric elixir, four drachms.—Mix.

If the stomach be irritable, the appetite bad, or if the medicine should excite nausea, a drachm of gum ammoniac and half a drachm of the dilute sulphuric acid, may be substituted for the oxymel of squills.

It not unfrequently happens, that in persons subject to this species of cough, nearly the whole of the membranes of the body are, like that of the windpipe, &c., preternaturally irritable. We have known the cough to alternate with irritation in the internal membrane of the urethra, bladder and rectum, and for the smallest dose of ipecacuan, calomel, or squills, to excite vomiting and to disturb the bowels; and it is not uncommon to meet with habitual cough, attended with purging. In such cases it would be highly improper to employ ipecacuan, squills, or any remedy that is

likely to disorder the stomach or bowels, because they do not produce a derivation in favour of the affection of the lungs, but on the contrary aggravate it. In such constitutions we have found the following mixture, in the dose of a small wineglassful three or four times a day, to prove very beneficial in allaying irritation of the windpipe, and in quieting the bowels :

> Take of bitter almond emulsion, 6 ounces; compound tragacanth powder, 3 drachms; prepared chalk, 1 drachm; gum ammoniac, 2 scruples; liquor of subcarbonate of potass, 1 drachm; extract of lettuce, a scruple; simple syrup, half an ounce.—Mix.

In this stage of the disease, it is common for such an afflux of blood to the brain to take place during coughing, as to occasion giddiness, headache, and a general sense of lassitude. In such cases, although the legs are affected with œdematous swelling, the pulse weak, and the body apparently in a debilitated state, it is often necessary to take a few ounces of blood from a vein, in order to prevent mischief in the brain; and after such abstraction, it is very common for the patient to experience a considerable accession of strength, an abatement of cough, freedom of breathing, and facility of expectoration, principally from relieving the brain (the vital spring of the body) from the pressure of over-distended vessels. The propriety of bleeding, when the general

health has so far given way to the disease, the circulation in the extremities become very languid, and the cellular substance loaded with serum, is perhaps one of the nicest points to determine that can occur in the practice of medicine; for if effusion of serum has taken place, either into the cellular substance of the lungs, the pericardium, or the cavity of the chest, the loss of blood might in a few hours terminate life.

As the patient advances in life, the heart often becomes so oppressed, and the blood-vessels of the lungs, &c. so loaded, as to occasion an effusion of serum either in the duplicatures of the pleura, the pericardium, or cellular substance of the lungs, in consequence of which the vital powers are so depressed, that the cellular substance of the lower extremities, the cavity of the belly, and, during an horizontal position, even the cellular substance of the face, soon becomes loaded with serum. When this state of system takes place, practitioners are apt to prognosticate speedy dissolution; and if foxglove, elaterium, or an anodyne be administered, he will gain credit by his prognostication. Hopeless as the case may appear to be, the life of the patient may, with attention to the whole machine, be prolonged a few years. We lately met with a case of habitual cough in this stage. The cellular substance of the lower extremities and the cavities of the belly and chest was so loaded with serum, that the patient had been obliged to sit up in a large chair for about

a fortnight. Whenever he attempted to lie down, a sense of suffocation and giddiness came on, that he was immediately obliged to resume his situation in the chair. We soon found that the state of system was not altogether the consequence of the progress of the disease, but in a great measure produced by an advertised infallible remedy for cough, in which we detected opium, and apparently foxglove. The specific had had the *promised* effect of quieting the cough, and diminishing the secretion of the phlegm, and had it been continued two days longer, would no doubt have completely quieted the whole machine. By the use of a mixture of an expectorant, tonic and diuretic medicines, similar to that of buchu leaves, page 190, attention to his bowels, and a nutritious article of diet, he was speedily restored to a state of comparative health.

When the powers of the body are reduced by this disease, to the state we have above described, if the substance of the lungs have not sustained serious organic mischief, the pulmonary artery and other blood-vessels not considerably ossified, the stomach capable of digesting a little light food, and especially if the complaint have not been judiciously treated, the life of the patient may not only be rendered much more tolerable, but prolonged many years, by invigorating the digestive organs, and by diminishing the quantity of serum which may be effused in different parts of the body, which, in the chest and head, often acts as

weights on the springs of life. With these views, two table-spoonsful of the following mixture may be taken three or four times a day:

> Take of alcaline liquor of iron, 3 drachms; spirit of sal volatile, 3 drachms; tincture of squills, 3 drachms; infusion of juniper berries, or of buchu leaves, 6 ounces; tincture of lupulin, half an ounce.—Mix.

In consequence of the sympathy which exists between the kidneys and the absorbent system, diuretic medicines, as the buchu leaves, juniper berries, &c., are very beneficial in chronic cough of elderly people, by diminishing or preventing effusion of serum, in the chest, belly, or extremities. If the bowels should be confined, the following pills may be administered:

> Take of alcaline extract of jalap, 8 grains; compound pill of Guaiac gum with aloes, 5 grains; prepared calomel, 2 grains.—Mix, and divide into three pills.

After the due operation of these pills, and after taking the mixture three or four days, a small blister may be applied to the inside of each leg, about four inches above the ancle, and kept open by dressing them with cabbage-leaves, previously softened by immersion in boiling water. With the view of promoting expectoration, which in this stage is always very difficult, the vapour of tar, or of a mixture of resinous gums, as the

benzoin, tolu, and frankincense, may be inhaled two or three times a day, as directed, p. 188. A stimulating gargle, as the infusion of horse-radish with a little vinegar or warm port wine, used four or five times a day, has proved very beneficial in cases of laborious or difficult expectoration from debility, probably by stimulating the branches of the eighth pair of nerves.

Small meals of nutritious articles, with mild condiments, should be adopted, as the inside of boiled or roasted beef or mutton (tender), with the red gravy, roasted or boiled fowls, light bread puddings, arrow-root or tapioca jelly, ass's milk, the sassafras cocoa, common cocoa, chocolate, &c. Rich soups or strong animal jellies, cow's milk, salted meat, &c. should be avoided, on account of not being easy of digestion. As a common beverage, barley-water acidulated with lemon-juice is the best, to which a little British gin may be added, if the stomach be oppressed or distended by flatulence. If an infusion of serum have evidently taken place in some part within the chest or the belly, or to a considerable extent in the cellular substance of the lungs, attended with a paucity of urine, and the system is in a languid state, the common beverage may consist of British gin*, diluted with a decoction of marshmallow-root or barley water.

* The gin made in England is certainly preferable as a diuretic to that imported from Holland, on account of containing a greater proportion of the essential oil of juniper

Oxygen gas,* inhaled to the extent of two gallons daily, is a powerful auxiliary to the medical treatment, in every stage of chronic or winter cough, not only by promoting expectoration, but the natural chemical processes which are kept up in the lungs by perspiration, the principal of which is probably conveying carbon from the blood. Some writers recommend invalids affected with chronic cough, to keep the atmosphere of their chamber and sitting-room at a regular temperature of about 58 or 60 Fahr. during the winter season; and if the action of the warm air could be confined to the surface of the body, it

berries. The latter indeed is often entirely free from it, being flavoured only with the empyreuma it receives from the ashes employed to rectify the spirit. The gin of this country differs very much in its diuretic property, some juniper berries being more productive of essential oil than others; and some distillers make use of other aromatics, as coriander seeds, &c. with a small proportion of juniper berries. The gin made by Mr. Wollaston, of Great Castle Street, Oxford Market, being pure and properly impregnated with the essential oil of the juniper berries, we have recommended our patients, whose cases require this cordial diuretic, to obtain it at that manufactory.

* If the patient have not the means of inhaling this gas by a gasometer, it may be disengaged near the face or nostrils of the patient, so as to be inhaled, by placing an iron retort filled with manganese in the fire, with a long circular tube placed in cold water, so that it may become cool before it escapes. The patient may lie or sit with his face over the end, so as to breathe the air as it escapes. The gas that escapes being diffused throughout the atmosphere of the room, will likewise prove beneficial. This apparatus may be obtained at the Medical Hall, 170, Piccadilly.

would doubtless keep the inner membrane of the windpipe in a quiescent state; but the inhalation of warm, and of course rarefied air, after the cough is established, we have found to increase the irritation: and in those cases attended with irritative ulceration of the inner membrane of the windpipe and of the larynx, or a disposition to organic mischief in the substance of the lungs, it has uniformly proved injurious. When the patient has gained sufficient strength to enable him to travel, he should lose no time in repairing to a place on the sea-coast, with a southern or western aspect, and which is sheltered by hills from the east or north air, as Brighton, Worthing, or Hastings. We have given a decided preference to Brighton, because the soil is dry, and the spring water generally pure. There is also, within half a mile of the town, a ferruginous spring, which in the far advanced stage of chronic cough, and the asthmatic cough of elderly people and consumption from tubercles, is a very valuable medicine. Here the invalid may take exercise, either once or twice a day, in a close or open chaise, according to the state of the weather, or the point of the wind. Some writers recommend the exercise of digging the ground, in cases of chronic affections of the lungs, on the supposition that pure air escapes from the turned soil; but so far from a salutary gas being disengaged, nothing but a humid vapour escapes, which is more likely to prove injurious than otherwise; and certainly the position of

stooping, and the exertion of raising the soil (in which the lungs are much concerned), with the feet on the cold ground, will very probably aggravate the complaint; and from the serious effects which we have known to follow this exercise, we have no doubt many thousands have been hurried to their graves by it. Some writers recommend riding on horseback as the most salutary exercise, in cases of chronic cough, and also of consumption of the lungs; and so highly did a late eminent physician think of the restorative powers of this exercise, in cases of diseased lungs, that he was in the habit of observing to his consumptive patients, that they could not do better than "live on horseback." We have known many patients adopt this exercise, but we never knew one do it with impunity; and it appears to us strange, that a physician acquainted with anatomy should recommend a person with diseased lungs to adopt an exercise, which would not only shake the affected organs, but expose the body more to a currency of air, than that of walking or riding in a vehicle. The exercise of swinging has been found, in some cases, beneficial, especially when it has excited nausea or vomiting; but in some instances it has proved injurious, by occasioning a determination of blood to the head.

During all the stages of habitual or chronic cough, it is of great importance to promote the circulation in the skin, and of course its secretions, the sensible and insensible perspirations. With

this view, the use of a vapour-bath, before the legs become œdematous, once a week, will be proper. It is also of greater importance to keep up a proper circulation in the lower extremities by friction with warm flannel, and by wearing, night and day, stockings of fleecy hosiery: if the latter do not succeed in keeping the feet warm, black silk may be worn over them.

The determination of blood, and of nervous excitement, which is thus produced to the extremities, often proves a more powerful derivative in favour of the lungs, than the inflammation excited by a blister on the chest.*

We have noticed in the preceding pages the habitual or chronic cough, which is dependant on morbid excitement, and sometimes irritative ulcerations of the inner membrane of the windpipe and its ramifications. There is a chronic cough, which is the consequence of inflammatory excitement, or superficial ulceration of the membrane of the cavity of the larynx: the irritation, or even inflammation of either, often extends to the upper part of the membrane of the windpipe, and frequently to the soft palate, the upper part of the gullet, and even along the eustachian tube, occasioning a distressing acute tickling sensation at the top of the windpipe, attended with slight

* The great advantage patients derive from bathing the feet in warm water after the cough is established, forcibly points out the importance of keeping the feet warm as a preventive of it.

expectoration, hoarseness, pain on swallowing, shooting pains in the direction of the ears; and sometimes the irritation is so extensive in the branches of the eighth pair of nerves, as to be attended with the symptoms of spasmodic asthma. When the inflammatory action is extended to the soft palate, or to the pharynx, the cause of the cough is discoverable on inspection. Sometimes it is attended with swelling of the integuments of the upper part of the windpipe, so as to be evident on external examination. This complaint often recurs during the winter season, and generally gives way to a sedative astringent gargle, and such medicines that promote the secretion of the intestines and skin, and allay general nervous irritation, which more or less attends it, as the following:

Take of supersulphate of alumine, one drachm; honey of roses, half an ounce; infusion of the flowers of the pomegranate, or simple infusion of red rose leaves, eight ounces; extract of henbane, one drachm.—Mix. To be used as a gargle four or five times a day.

If ulceration have taken place about the epiglottis, the soft palate, or any part of the pharynx, the following may be substituted for the above:

Take of infusion of the bark of the white fir, eight ounces; honey of roses, four drachms; opium, twenty grains.—Mix.

Dissolve the opium in the infusion, and then add the honey of roses, and strain off the liquor through fine gauze or linen for use.

As an anodyne and diaphoretic, one or two of the lettuce lozenges may be taken every or every second hour. This composition (the inspissated white juice of the garden lettuce, ipecacuan, citric acid, liquorice extract, and tolu), in consequence of being dissolved gradually in the mouth and passing over the affected parts, acts more efficaciously than pills or mixtures of similar ingredients.

To keep the bowels in a regular state, and occasionally to empty them, one, two, or three of the pills, page 186, may be taken every or every other night, or occasionally, according to their effects. If the inflammation or irritation should run high or prove obstinate, a small blister should be applied to the upper part of the throat, over the projecting part, technically termed *pomum Adami*, or one applied behind each ear. If the inflammation or irritation should not be very troublesome, the application of a mixture of the strong liquor of ammonia *(liquor ammoniæ puræ)* and olive oil, in equal quantities, by means of a little flannel, will probably excite a sufficient degree of irritation to produce the derivative or counter-irritative effect. If the skin should be irritable, the proportion of the liquor of ammonia should be diminished, and, if in a contrary state, it should be increased so as to keep up a kind of mild in-

flammatory excitement, *i. e.* not amounting to active inflammation.

If the ulceration, or irritation, extends to the inner membrane of the windpipe, the vapour either of tar, of the decoction of hops, or of the weak impure pyroligneous acid, may be inhaled two or three times a day, taking care that it be not received in such a warm state as to increase irritation, or excite coughing.

There is a variety of cough attendant on thickening of the part at the top of the windpipe, termed the larynx, with chronic inflammation of the internal membrane of the windpipe. This is a very common disease in this country, especially among elderly men who have freely indulged in the cheering glass, and in singing, spouting, or preaching. Being attended with wheezing, short cough, paroxysms of difficulty of breathing, expectoration, &c., it is often mistaken for asthma, constitutional cough, and consumption, by inexperienced practitioners. The disease may be easily ascertained by external examination, the enlargement of the larynx being evident to the touch. It is also painful when compressed or moved. The irritative inflammation extends to the fauces, and there is generally an acute pain on swallowing: indeed, the inflammation sometimes extends two or three inches down the gullet, when the patient is very much troubled by an accumulation of phlegm in the pharynx, and sometimes such

a quantity gravitates into the stomach, as to interrupt digestion and produce nausea. A very interesting case of this disease lately occurred at St. Bartholomew's Hospital, where, we are happy to find, it was determined to be a *surgical* case. The patient, a female, (Sarah Parfett,) was fifty-five years of age. She was admitted on the 27th of July, when she complained of considerable pain and soreness of the throat: the larynx was very hard and much enlarged; the voice much affected, and breathing laborious, with slight short cough. Several leeches were at different times applied, from which she always derived much benefit. The tartar emetic ointment was then employed without affording much relief. Her general health had not given way to the disease, her pulse being regular, and appetite good. On the 24th of September, Mr. Laurance ordered a perpetual blister, which proved of no service; the difficulty of breathing rapidly increasing to such a degree as to threaten suffocation. The house surgeons, Messrs. Joseph and Clarke, sent for Mr. Laurance, supposing that an opening into the windpipe was necessary to preserve life. Mr. Laurance, however, thought otherwise, and ordered three grains of the antimonial febrifuge powder, with two grains of prepared calomel, to be given every four hours. During the night, she had several severe paroxysms of difficulty of breathing. Being evidently better on the following day, Mr. Laurance ordered the medicine to be continued. An emetic was also

administered, which relieved the oppression of the chest, of which she had greatly complained. The next day she was considerably better, the state of respiration admitting of her lying down, which she had not been able to do for some time. Mr. Laurance now prescribed two grains of calomel, with one-third of a grain of opium, to be given every four hours. After continuing this medicine two days, she was salivated. *From this time the disease gradually decreased,* the inflammation of the fauces, and irritation of the larynx, and upper portion of the windpipe subsiding, and the voice returning. She complained only of weakness. Mr. Laurance, in his clinical lecture on this case, stated that he had seen a similar case in consultation with Dr. Farre and Mr. Tyrrel, on which his opinion was requested as to the propriety of making an opening into the windpipe. Dr. F. and Mr. T. gave their opinion that he was too much reduced to be saved by the operation. They agreed, on the recommendation of Mr. Laurance, to administer mercury; the patient was salivated, and in two days the diseased action subsided, and the voice returned. Dr. Farre considered the effects of mercury decisive of the disease being symptomatic of a disordered or diseased liver!! The treatment proved, as in the foregoing case, successful. Mr. L. emphatically observed, that the result of the practice in that case, induced him to order it in the present one. He concluded by observing, that it appeared to him that we have formed too limited

a view of the use of mercury, and that he considered it a medicine of too great power and value, to omit mentioning *every fresh instance* of its efficacy. If medical men have taken too limited a view of the *use* of mercury, they have certainly not too much limited its use in diseases; for it is so freely prescribed both in acute and chronic affections, that a prescription, without some preparation of mercury, out of the many thousands that are written daily in London, is a very rare thing. Calomel, or blue pill, observes a Scotch lady, is to medicine what common salt is to food; there is no doing without it.

About ten years since, we met with a case of the thickening of the larynx, in an elderly gentleman residing in Henrietta-street, Covent Garden, attended with distressing cough, inflammation of the fauces, considerable expectoration and paroxysms of difficulty of breathing, during the night, often to a degree as to threaten suffocation. We ordered ten leeches to be applied to the skin of the projection termed *pomum Adami*, and afterward a blister, and prescribed the following medicines:

Take of blue pill, half a drachm; ipecacuan powder, ten grains; gum ammoniac, two scruples; extract of hedge hyssop, half a drachm.—Mix, and with simple syrup, form a mass, and divide into thirty pills; three to be taken three times a day, with a dessert spoonful of the simple oxymel, in a little sparemint water.

From these medicines the patient derived considerable benefit. After continuing them a fortnight, symptoms indicative of approaching salivation appeared, when the quantity of blue pill was diminished. He then rapidly recovered; the enlargement of the larynx, and the inflammation of the fauces, subsided, and with them the cough, pain on swallowing, &c. ceased. He afterward enjoyed health for five years. During a residence a few miles from London, he experienced a return of the thickening, with all the irritative attendants. He applied to a medical gentleman in his neighbourhood, who pronounced his complaint "pulmonary consumption." Prussic acid in the almond emulsion, the oxymel of squills, Iceland moss, and the common routine practice in pulmonary consumption, had a fair trial, but failing to make any good impression on the disease, and a very *bad* one on his general health, the assistance of a high-bred Cambridge physician, with whom the apothecary was connected, was requested. The Doctor, looking most wisely, examined the pulse with his gold watch, splendid *chain* and *seals*, and after making a few inquiries, coincided with the apothecary. The patient's strength continuing to decline, and his distress from difficulty of breathing, cough, &c. increasing, he requested our advice. We found him in a most emaciated and debilitated state. The larynx was much enlarged, and the fauces inflamed and ulcerated. The time had evidently passed when an alterative medicine would

have cured him. The case being hopeless, his countenance, wandering state of his mind, small quick pulse, coldness of extremities, &c. indicating approaching dissolution, we merely ordered a medicine to diminish his sufferings. The following day he discharged his debt to nature. Now had the medicines we prescribed for him when he was afflicted in Henrietta-street, been given in the early stage of the attack, we are satisfied he would have been living at this time. So much for the *physical* treatment of a *surgical* case by a high-bred Cambridge physician.

There are other species of chronic cough, from different organic affections of the lungs (as ossification of arteries, adhesion of air-cells, producing a consolidated appearance like liver,* &c.), and a great variety of organic diseases of the heart, the blood-vessels, and other parts within the chest which are apt to come into action or to be aggravated by atmospherical changes, that disturb the nervous system, or occasion internal congestion, by diminishing the secretion or circulation of the skin, which require a treatment similar to that we have recommended for simple chronic cough, except the inhalation of a medicated vapour. In some cases of organic diseases within the chest, which mechanically or sympathetically disorder the lungs, so as

* A learned editor of a medical periodical work, has termed this consolidated state of lungs, "conversion of the lungs into liver."!!

to occasion cough, mercury and a perpetual blister are necessary; but the organic diseases are so numerous, and their effects so various from situation, that it is almost impossible to notice all of them, and to point out a treatment applicable to all. The treatment we have suggested is applicable to ninety-nine cases out of a hundred of chronic cough which occur in general practice; but, in nervous temperaments especially, there are often peculiarities to contend with, which render very considerable alterations in the customary mode of treatment necessary. Many young physicians, flushed with the theoretic knowledge of diseases they have obtained at an university, and with the academical honour of a doctor's degree, resolutely put their artillery into action, determined to subdue even peculiarities themselves; whilst the practitioner of experience and observation attends to peculiarities, and, instead of a furious direct attack on the enemy, will assail it chiefly through the medium of the constitution, well knowing that every disease is modified by it. The young physician supposes that his diploma will sanction the boldest practice; and those who have been engaged in experiments on living brutes, consider a living subject of little more value than a dead one; but the man of experience, who has, of course, seen much of human nature, knows how to estimate human life; and, as he advances in age, he looks more to a reward hereafter than either to accumulation of wealth or attainment of fame:

CHAP. XVII.

COSTIVENESS OF RUPTURED SUBJECTS.

An accumulation of fæces in the intestines of a ruptured person is not only a common cause of strangulation; but the distension of the bowels, and particularly of the protruding portion of the intestines, by a disengagement of gas, which generally accompanies it, is always very distressing. Strangulation of the protruding part being a most serious occurrence, ruptured persons should be very particular in keeping their bowels in a regular state, and to guard against distension by full meals, or a free use of a vinous liquor.

Active purging in cases of costiveness, by hastening the fæces into the protruding portion of the intestine, having brought on strangulation, it is more prudent to guard against accumulation by obviating costiveness, than to have recourse to a powerful cathartic to remove it. For the purpose of keeping the bowels in a regular state, and expelling gas, two or three of the following pills may be taken once or twice a day, so as to produce one or two evacuations daily:

Take of the alcaline extract of jalap, one drachm; Peruvian balsam, half a drachm; dried subcarbonate of soda, one scruple.—Mix, and divide into twenty-four pills.

If the patient be subject to indigestion, half a drachm of the extract of fumitory may be added to the above formula, and the mass divided into thirty pills. If the costiveness has existed a few days, and the intestines are evidently overloaded, a stimulating lavement, as half a pint of infusion of senna with a table-spoonful of common salt, dissolved in a pint of water, may be administered lukewarm. In cases of spasms, the warm-bath (98) is an important auxiliary to an aperient medicine. When a rupture is strangulated, no time should be lost in having recourse to surgical advice.

CHAP. XVIII.

COSTIVENESS ATTENDANT ON THE DEVONSHIRE COLIC.

On the first attack of the Devonshire colic, the bowels are generally most obstinately constipated. Some practitioners of eminence recommend opium to be administered, by the mouth and clysterwise, with the view of allaying spasms and morbid irritation of the intestines, previously to the employment of an aperient medicine; whilst others contend that, when the opium is intimately mixed with a purgative medicine, the latter does not excite nausea or vomiting, and operates more easily and expeditiously, in consequence of the opium removing the spasmodic construction of the muscular coat of the intestines; and this latter practice, under the direction of the late Mr. Cam, of Hereford, and Dr. Blount, at the Hereford Infirmary, (a county in which this disease prevails,) we have known to prove most beneficial.

The following is the composition of these eminent practitioners;

Take of opium powder, two grains; cathartic extract, twelve grains; prepared calomel, three grains.

A cathartic clyster of infusion of senna, Epsom salt, and tincture of opium, was also administered, and the bowels well fomented, till an evacuation was produced.

A stimulating purgative is necessary in this species of constipation, although the tension and tenderness of the bowels, on pressure, and the state of the blood-vessels, may render bleeding and blistering necessary; for when the disease has been removed by it, the paralytic affection of the upper extremities is always much less than when a solution of the Epsom salt, in an infusion of senna, was exhibited under the direction of another physician of the same institution. Although the constipation is not occasioned by a mechanical obstruction, as in the disease termed *introsusception*, when it proves obstinate, it will require the same decisive treatment to remove it as recommended for introsusception. In one obstinate case, the following composition, taken at once, produced the desired effect:

Take of croton oil, two drops; Castile soap, four grains; extract of henbane, five grains; colocynth powder, four grains; oil of cloves, two drops.—To be mixed and divided into middle-sized pills.

In other cases, the croton oil excited vomiting. It appears, by an account of the croton oil, by an Indian practitioner, that when rubbed round the navel, it has succeeded in producing alvine evacuations, in cases when the stomach was in too irritable a state to admit of the exhibition of any aperient medicine. We have known this active article excite purging in a case of apoplexy, when rubbed over the tongue; an effect which we are disposed to attribute to a peculiar continuous action, and not to sympathy, absorption, or to its getting into the stomach.

CHAP. XIX.

COSTIVENESS ATTENDANT ON INDIGESTION.

COSTIVENESS is generally noticed among the symptoms of indigestion; but experience has satisfied our minds, that indigestion is much more frequently the consequence of costiveness, than costiveness is of indigestion. Professor Cullen particularly notices costiveness as a *symptom* of indigestion; and Dr. Good, in his chapter on Indigestion, observes, "the debility, and indeed torpitude of the intestinal canal, is evident from the *habitual costiveness* which so *peculiarly characterises* this affection; and nothing," says he, "can be a stronger proof of the great *inactivity* of the intestinal tube, from whatever cause produced, than the feebleness of its peristaltic motion, notwithstanding the *pungency* of the acid, and other acrimonious matter that are so frequently found in the stomach, and hence so frequently diffusing their asperity over its inner surface." If the costiveness be a symptom, or the consequence of indigestion, it cannot with propriety be termed *habitual;* and as to the acid which forms in the

stomach, it has been considered, by some writers, to be so astringent as to be capable of constipating the bowels of adults; and we have certainly met with obstinate costiveness, attended with distressing heartburn, from the prevalence of acid matter. With respect to the "diffused action of other pungent acrimonious humours not increasing the peristaltic motion so as to obviate costiveness," it is well known, that when the fæces, from retention, become acrimonious, they so far increase the peristaltic motion as to occasion violent purging, and sometimes inflammatory action. On the prevailing opinion, that diminution of the peristaltic motion is a consequence of a want of tone in the muscular coats of the intestines, Dr. Hamilton makes the following observation:—"I am inclined to think that the symptoms referred to loss of tone, proceed on many occasions more directly from the *impeded* peristaltic motion, the *consequence* of constipation. In this situation," says the doctor, "we may easily understand, that the distended colon cannot, for want of space, receive the contents of the small intestines, which will, of course, stagnate throughout the whole canal; the action of which, being thus interrupted, will soon altogether cease, and be at last inverted. The various ailments which thence ensue are daily before our eyes, and the relief which, under these circumstances, we observe to follow soon after the exhibition of a purgative, and the cessation of complaint upon its operating freely by stool, are in proof that this opinion is

well founded." When the intestines are overloaded with fæces, so as to impede the peristaltic motion, it is not to be expected that the stomach will continue to perform its office; and as to the beneficial effects of an aperient medicine on the stomach in removing dyspeptic symptoms, without the aid of a stomachic or tonic medicine, they are known to every patient who has taken a dose under such circumstances; and every honest practitioner of experience and observation, we think, will agree in opinion with us, that ninety-nine cases of indigestion out of every hundred, of common occurrence, arise from neglect of the bowels; and that, generally speaking, if proper attention be paid to the state of the intestines, the stomach will take care of itself. The baneful effects of over-distension of the intestinal tube from constipation, is not confined to the stomach and intestines; for the descending aorta, and its ramifications, being compressed by the distended bowels, the blood is conveyed in too great a quantity to the upper part of the body, occasioning head-ache, difficulty of breathing, a full pulse, and increased heat in the upper extremities, while the temperature of the lower extremities is reduced in consequence of the circulation of blood to them being checked. Hence costiveness is a common forerunner of apoplexy, epilepsy, pulmonary consumption, and a great variety of other diseases. Indeed, the beneficial effects of purging, in cases of congestion of the vessels of the head and lungs, frequently arise

from the removal of the mechanical causes of the retarded or checked circulation in the abdominal viscera and lower extremities, by liberating as it were the descending aorta, and the other arteries of the abdomen, and not from preventing absorption of chyle, and diminishing the quantity of circulating fluid, by hurrying the chyle through the intestinal canal, as some practitioners imagine; for in congestion or inflammation of the lungs or brain, unaccompanied with constipation, purging medicines, even when they produce frequent copious evacuations, make little or no impression on it.

By *digestion* in the animal economy, is understood not only the conversion of food in the stomach into chyme, but the production of chyle from the chyme in the upper portion of the intestinal tube, termed the *duodenum:* and when the process is imperfect, it is termed *indigestion;* that is, the food is not properly converted into chyme, and, consequently, the chyle produced in the duodenum, cannot be healthy or fit for the nourishment of the body. By the process of digestion, the specific or chemical differences in animal and vegetable food are destroyed; the chyle from different aliments, either taken singly or together, being of the same chemical or sensible properties; hence the process of digestion is termed assimilation. Notwithstanding the ingenuity of the most eminent ancient and modern physiologists has been exercised, or rather exhausted, in attempts to

account for the process of digestion, we are still at a great distance from any theory that satisfactorily accounts for all the different appearances. Hippocrates attributed the conversion of aliment into chyme, to a putrefactive process; Pringle and Macbridge; to a fermentative process; and the celebrated physiologist, Haller, to a joint action of solution and fermentation. When we consider the state of chemistry in the times when these authors flourished, the difference of their opinions seems to consist only in words. Van Helmont ascribed it to the energy of his *archeus* in the stomach; and, fanciful as the idea may appear to be in language, the process is unquestionably very intimately connected with the *vital* principle.*

By the most modern physiologists, the changes that take place in the aliment in the stomach, are

* Van Helmont termed the power which superintends the animal economy, *archeus*. However language has diversified the nature and operation of this principle, and the idea has been ridiculed by some *philosophical* atheists, who exercise their ingenuity to unsettle the minds of those who are incapable of sound reflection, as to the idea of a spiritual superaddition to the body; the existence of the power in the animal system, vulgarly termed Nature, by correcting accidental deviations from health, repairing local injuries, and preserving the body in a sound state, must appear obvious to every practitioner of observation. When NATURE is said to act, such a principle is implied. Van Helmont, who evidently possessed a sound judgment and extensive knowledge, placed his archeus (the grand regulator and conservator of the animal machine) in the stomach; and the fact of the tendinous part of meat and parts of aliment, which have not been properly masticated, being ejected into the mouth, seems to favour this opinion.

attributed either to fermentation or solution; but each give a due share to the previous division of the food by mastication, combination with saliva, a certain degree of temperature, (from 98 to 100 Fahr.) and gentle agitation by the action of the muscular fibres of the stomach, producing a regular, progressive, and retrograde motion. Those who contend that digestion is a simple solution, (an opinion which is generally maintained by the medical profession of this country,) assert that it is effected by a peculiar secretion of certain glands of the stomach, which they term the gastric juice, and which from its action on different articles of the three kingdoms of nature, according to their account, may be considered nearly an universal solvent. The reports of Hunter, and the experiments of many physiologists of Europe, are greatly in favour of this opinion; but when we so frequently meet with the products of fermentation in the stomach, as acetous acid and carbonic acid gas, it is not improbable that the separation of the particles of food, and its conversion into the slimy mass termed chyme, are effected by a peculiar fermentative process excited by the gastric juice; and when the temperature of the stomach runs too high, or when the gastric juice is not healthy or deficient in quantity, the peculiar fermentative process is imperfect, rapidly running into the acetous stage: be this as it may, all must agree that the circumstances necessary for a healthy digestion are,

1stly, A proper mastication of the food, and a thorough mixture of it with saliva.

2dly, A certain degree of temperature of the stomach (from 98 to 100 Fahr.)

3dly, A certain quantity of healthy gastric juice.

4thly, A certain degree of power of the muscular fibres of the stomach, and of the diaphragm and abdominal muscles.

5thly, A free state of the intestines.

And, 6thly, A free or cheerful state of mind.*

By indigestion, as we have already observed, is understood an imperfect dissolution of the food in the stomach, which is technically termed *dyspepsy*, signifying badly concocted food. This complaint, with which almost every person in the high and middle classes of society is more or less affected, is noticed by Cullen as a *primary* disease, a genus of the order adynamiæ, from diminution of the involuntary powers, vital or natural, and by all writers, ancient and modern, it is ascribed to *debility* of the stomach. The imperfect conversion of food into chyme, or the non-digestion of the food in the stomach after being properly masticated, it is obvious, must be the consequence of a disordered state of the stomach, either primary or sympathetic; and every practitioner of observation must admit that that disordered condition of

* Laborious or harrassing occupation and distress of mind, especially grief, are very frequent causes of the most obstinate cases of indigestion.

the stomach is frequently of an opposite nature. Indigestion is as common (if not more so) in robust as in weakly subjects, and in people, whose stomachs, from frequent stimulation and indulgence in savoury dishes and vinous or spirituous liquors, are in a state of excessive excitement, and in direct opposition to that of debility. The fact is, in such subjects the temperature of the stomach is much above the natural standard; the secretion of gastric juice is unhealthy, and the muscular fibres of the stomach, from frequent over-distension, are not capable of performing their office of agitating the contents; the consequence of which is, a rapid fermentative process takes place, of which acetic acid and carbonic gas, often in considerable quantity, are the products. By this over-stimulation of the stomach, and the unhealthy products in it, the functions of the brain are disturbed, and the action of the heart accelerated, so that a feverish state of the whole system is kept up. The indigestion of inebriates and gluttons is in fact the consequence of a state of stomach opposite to that of debility. The disordered state of the stomach, of which indigestion is a consequence, may again arise from organic disease, either of the pyloric or cardiac portion of the stomach, which in the first stage is in an opposite state to that of debility. The stomach, again, is frequently disordered by sympathy.* A plethoric

* The blind followers of the chylopoietic theory of Mr. Abernethy, attributing almost all local disease to a disordered

state of the system, by disturbing or compressing the brain, or by oppressing the heart, will disorder the stomach and occasion bad digestion, and in such case the cause is not direct debility.

Disease of the stomach, intestines, or lungs, again disorder the head, and by preventing sound sleep, keeps up the action in the brain, of which dreaming is a consequence. This being attendant more on disease of some part of the alimentary canal and of the lungs, than of the liver or spleen, shews that the sympathy between them and the brain is greater than between the brain and the latter viscera.

In fact, the non-conversion of food into healthy chyme, termed indigestion, is the effect not only of a variety of disorders (primary and sympathetic) of the stomach, but of disorders diametrically opposite; and under no circumstance, in our opinion, can a *mere imperfect process* be termed a *primary* disease, being only the consequence of some disease or disorder of the organ itself: and whoever considers the great variety and opposite nature of diseases or disorders of the different organs of the body, especially of the stomach, must be convinced of the absurdity of publishing a dissertation on indigestion, as a *primary* disease, and on laying down

condition of the organs of digestion, hold in great contempt all topical remedies in local diseases; but in cases of piles and organic disease of the rectum, the accompanying disorder of the stomach is in general sympathetic, declining in proportion as the latter is relieved. The same may be said of a great variety of local diseases remote from the stomach.

general instruction as to medicine, diet, &c. &c., for its treatment, or—as some late writers, who cannot extend their views of disease beyond the liver, say—"for the *cure* of *indigestion* and its consequences."‖

In cases of indigestion from nervous excitement, the consequence of a continued abuse of vinous or spirituous liquors, or indulgence in savoury dishes, it is a common practice to unload the alimentary canal two or three times a week, by an active purgative, and to administer a bitter infusion two or three times a day, to *strengthen* the stomach; and such treatment generally proves beneficial, the bitter infusion—as columbo, quassia and gentian, like many other vegetable bitters, with little or no astringent principle—being sedatives: but the continued use of such intense bitters, and the frequent exhibition of a drastic purgative, will assuredly, sooner or later, produce such a state of the alimentary canal, as will considerably shorten life. Indeed, there is no fact better established in medicine, than that a regular use of a strong bitter will produce, in the course of five or six years, a fatal paralysis of the stomach.*

* The vegetable bitters are, unquestionably, powerful poisons to a great variety of small animals; and probably the reason of the bark of trees, &c. being impregnated with this principle, is to protect the trunk from their devastation. The preparation of Peruvian bark, termed quinine, is a very potent bitter; and being a sedative, has proved very injurious in cases of indigestion from debility of the stomach.

A common cause of indigestion in this country, particularly among sedentary and studious people, is unquestionably an over-loaded state of the intestines from costiveness; for even in the cases from over-stimulation, or from gluttony*, it is of great importance to maintain a regular state of bowels, in order to prevent mischief in the brain or lungs. For this purpose, the alcaline extract of jalap may be taken, as recommended, page 20, for habitual costiveness; but if the stomach has suffered from continued bad digestion, or over-stimulation, a stomachic will be necessary, such as the alcaline tincture of fumitory, two or three tea-spoonsful of which may be taken in a wine-glassful of water.

When the stomach is evidently in a state of great debility, either from a long-continued indulgence in spirits, wines, stimulating diet, or from age, two or three tea-spoonsful of the volatile aromatic tincture of bark, may be taken two or

* A surgeon of London emphatically observed to a dyspeptic patient, who insisted on his hearing his narrative of symptoms, "Well, Sir, at any rate you have clearly proved that you are both a glutton and a drunkard; and let me candidly tell you, that your application to me does me *honour*, because in you I have a *Beast* for a patient. I would with pleasure physic a dog that had overgorged himself; but for a man, who possesses the gift of reason, I can find no excuse. Go, Sir, and read Cornaro's excellent little work, and if you cannot abandon your mode of living, take up your abode with pigs."—"Well, Sir," replied the patient, "we are, in one respect, on an equality; for if you have a *Beast* for a patient, I have a *Brute* for a doctor."

three times a day, in a glass of water, in lieu of the alcaline tincture of fumitory.*

If the affection of the stomach has been of some months' standing, the probability is, the cellular substance, or veins of the viscera, are overloaded. In such cases, the beneficial effect of purgative and stomachic medicines, and attention to diet, will be of short duration, unless the visceral obstruction be removed. In order, therefore, to render the cure permanent, three or four grains of the blue pill should be given every night, for about a week. This medicine will not only remove the visceral congestion, but render the stomach, &c. more susceptible of the action of a strengthening medicine, and being diffused throughout the abdominal viscera, will establish a healthy harmony between them. (See use of diuretics, page 234.)

The conversion of food into good chyme, greatly depending on its being properly masticated, and mixed with healthy saliva, the mouth may be considered as forming a part of the digestive organs. The process of digestion is, no doubt, often disturbed, or rendered imperfect by morbid secretions of the mouth, especially of the salivary glands, unhealthy mucus of the tongue, and the

* Directions for making this tincture are given page 42. The tincture of canella alba was a very favourite remedy with the late Dr. Baillie, for the indigestion of elderly people; but being aromatic only, a tonic addition, as the essential salt of bark, is necessary to render its effects permanent.

collection about the teeth termed tartar. Attention, therefore, should be paid to the condition of the mouth, as well as to the stomach and intestines. The teeth should not only be cleaned every morning by a powder, that will remove the collection, without abrading the enamel, before breakfast, but also the gums and the tongue, with an astringent lotion, not only to remove unhealthy matter, but to strengthen the gums, and the salivary and other glands, so as to produce healthy secretions. That there is a kind of continuous sympathy or feeling between the mouth and stomach (from continuation of surface and nervous connexion), must appear evident to every person who has paid any attention to them. The sense of hunger and disease in the stomach will bring on a copious secretion of saliva, and mechanical irritation of the fauces will excite vomiting. The strengthening effects of an astringent lotion on the tongue, gums, &c. are communicated to the stomach; and we have known many invalids from indigestion, receive more benefit from such lotion, than from the use of a tonic medicine taken into the stomach. In the 119th number of the Gazette of Health, we have noticed the composition of a tooth-powder and a lotion by Dr. Hertz, a celebrated German dentist, which we have latterly preferred to the levigated charcoal of the areca nut. The basis of it is the torrified areca nut, in fine powder. It effectually removes the collection which forms on the teeth, principally during sleep, and is at the

same time free from any article that is capable of acting injuriously on the enamel of the teeth. The astringent lotion, also, produces a tonic effect on the gums, the salivary glands, and surface of the tongue, which is evidently communicated to the stomach. We have, for some time, adopted these articles, and find them to merit the character Mr. Hertz has given them*; and those who have employed them, speak in high terms of their beneficial effects.

With respect to diet, there is so much peculiarity of stomach and constitution in dyspeptic subjects, that it is impossible to give instructions applicable to every case. In general, broths, with celery or green vegetables, gravy soups, and thick soups, onions, stuffing, the outside of roasted meat (particularly of pork), green vegetables, either boiled or raw, as cabbage, spinach, celery, water cress, &c. pastry, raw fruit, cows' milk, eggs, and tea, are improper. The directions we have given, page 158, for diet, in cases of disease of the liver, apply to indigestion.

* The powder is sold at 170, Piccadilly, under the name of the Compound Areca Powder, and the lotion under that of Compound Rhatany Lotion, with directions for their use.

CHAP. XX.

COSTIVENESS OF EPILEPTIC SUBJECTS.

THREE species of epilepsy are noticed by Professor Cullen; viz. primary, sympathetic, and occasional.

1st. The primary, or *cerebral* epilepsy, dependant on some structural disease or disorder of the brain, or morbid condition of its membranes, or surrounding bone, which occasionally disturbs its functions, principally by its mechanical action.

2dly. Sympathetic epilepsy, when excited by some morbid action of a remote part, with a peculiar sensation of a cold vapour ascending from it to the head, termed the *epileptic aura*, or some other admonitory symptom; and,

3dly. The occasional epilepsy, arising from an evident irritating cause, on the removal of which the disease terminates. Of the causes of this species, Professor Cullen notices nine:

1. Injury of the head.
2. Severe pain.
3. Worms in some part of the intestinal canal.

4. The action of a poison.
5. Repulsion of a cutaneous eruption.
6. Disordered stomach.
7. Mental agitation or over-exertion.
8. Excessive loss of blood.
9. Debility.

Epilepsy probably depends on several causes; as a partial change of structure of, or formation in, the substance of the brain;* disease in its membranes, disease or malformation of the skull-bone, occasionally disturbing its functions, *i. e.* when the brain is irritable, or in a state of extra-excitement; and some peculiar constitution of the brain, or nervous system, which renders it

* In two persons, who died of epilepsy, Mr. Abernethy found the medullary substance of each hemisphere so far altered from its natural structure, that it had lost its peculiar firmness and smoothness of surface, and to appear like thick curdled cream. "There can be no doubt," says Mr. Abernethy, "that epilepsy takes place, without any morbid alteration of the structure of the brain, or its membranes. Some of the persons, whose brains were examined, without the discovery of any disease, were subject to attacks like epilepsy." Dr. Henry Fraser has, of late, published a decisive instance in proof of this fact. A patient died of epilepsy, and his brain was examined, with particular attention, by Sir Astley Cooper, without any morbid alteration of structure being evident. "In general, however," says Mr. A., "morbid appearances are evident in the brains of those persons who die of epilepsy. Tubercles are most frequently met with." The structure of the brain may undergo a change, which may not be evident to the eye, or to the sense of touch, on dissection. We are inclined to believe that the cause of regular epileptic fits is generally within the skull.

too susceptible of mental or corporeal influence, independent of structural derangement or formation, and, consequently, not discoverable on dissection.

Whether the disease depends on tubercles or hydatids in the brain, or any morbid change of structure, tuberculated state of the membranes, or malformation, caries, &c. of the skull-bone, or a peculiar construction of brain, the object of treatment is the same; viz. to quiet the cerebral system, so that it may not be disturbed by those causes which immediately bring the malady into action, and, as far as is practicable, to avoid or remove the *exciting* causes; as worms in the intestinal canal; irritation in the stomach, from imperfect digestion; mental perturbation; costiveness; plethora; over-stimulation of the stomach; extra corporeal or mental exertion, &c. &c.

Within the last century, every year has produced, among the regular profession, a *specific* remedy for epileptic fits, some of which have been found to increase the interval of recurrence, but we believe not one has ever succeeded in *curing* true cerebral epilepsy.

The nitrate of silver has succeeded, in many cases, in suspending a paroxysm, probably in consequence of relieving the brain, by producing a determination of blood, &c. to the stomach, by its *local* stimulating action; we say *local*, because, when the effect of a potent stimulus is extended to the brain and nervous system, as in

cases of intoxication, the recurrence of a fit is more frequent. The misseltoe, the rhatany root, the Peruvian bark, and other tonics, have, in many cases, afforded temporary relief, in consequence of allaying irritation of the stomach, by promoting digestion; and the vegetable and mineral antispasmodics, as hemlock, henbane, meadow saffron, the deadly nightshade, acetate of lead, sulphate of zinc, &c. have, in many cases, increased the interval of recurrence, by diminishing nervous excitement and muscular irritability; but we believe not one of them has succeeded in effecting a cure.

Of all the remedies that have been recommended for epilepsy, purgative medicines, we believe, have proved most beneficial. By the regular use of an aperient medicine, a state of system may be preserved unfavourable to the epileptic action; *i. e.* the brain, notwithstanding the existence of tubercles, or any local structural mischief, may be kept in a quiet state, by the consequent determination to the stomach and intestines; plenitude of the sanguiferous system prevented; an accumulation of matter (which might irritate the intestinal canal, so as to sympathetically disturb the brain) may be obviated. Dr. Hamilton, in his Treatise on Purgative Medicine, says he has found active purgatives sufficient to *cure* epilepsy. To effect this, says Dr. Good, "the remedy should be administered *freely*, and maintained *steadily*, so as to keep up a *perpetual counter-irritation* in

the bowels, which *may* act as a *repellent* against the morbid irritation in any other part, and directly carry off whatever acrimony may exist in the bowels themselves."

Drastic purgative medicines, especially when "freely and steadily administered," frequently excite a degree of irritation in the intestinal canal, as to disorder the cerebral system, and bring on violent paroxysms of the disease. Dr. Hamilton, on whose authority Dr. Good recommends the free and steady exhibition of active purgatives, finding that his system was not understood by some practitioners, observes, in the preface of the last edition of his Treatise, "There appears to exist a *misconception of the principle itself*, by which I am understood to recommend *full* purging. This erroneous conclusion seems to have originated in the association established in the mind, between the *effect* of purging, and the *exhibition* of purgative medicines. The principle on which I *steadily* proceed, is, to *obviate* costiveness, and, at the same time, to *avoid* purging."

With respect to "morbid irritation in a part remote from the brain," being a cause of epilepsy, as supposed by Cullen, from the circumstance of the patient experiencing a sensation of cold vapour passing from the part to the brain, in all the cases of this kind, which have been subjected to examination after death, organic disease has been discovered in the brain. Indeed, it is common for invalids to experience a similar sensation a day

or two previously to an apoplectic fit, and during palsy of one side of the body, from effusion of blood in the head.

From the foregoing remarks, on the nature and causes of epilepsy, it must appear obvious, that costiveness, by occasioning a determination of blood to the brain, and favouring irritation in the stomach and intestinal canal, must operate injuriously to epileptic patients; and every practitioner of experience and observation must be aware, that costiveness is a common precursor of an epileptic fit, and is, no doubt, a very common exciting cause of a paroxysm. Long experience and observation have satisfied us, that the most important class of remedies in cases of epilepsy, is that of purgatives, not in large doses so as to act violently on the bowels, as recommended by some writers (for we have frequently found strong purgatives evidently to disturb the nervous system, so as to bring on violent paroxysms of the disease), but to produce two copious alvine evacuations daily, and promote the circulation in the bowels; and for these purposes, we have found the following composition to succeed better than any other with which we are acquainted.

Take of alcaline extract of jalap, one drachm; compound pill of gum galbanum, half a drachm.—Mix, and divide into twenty pills;

one, two, or three to be taken twice a day (so as to produce one or two evacuations daily), with a wine-glassful of infusion of buchu leaves or juniper berries.

The use of a diuretic medicine, as the infusion of buchu leaves, or juniper berries*, by keeping up a proper secretion of urine, considerably promotes the *efficacy* of an aperient medicine in those nervous affections which are dependant on morbid irritation of the stomach and intestines. The contents of the abdomen may be considered as an animal laboratory, each organ being almost continually engaged in forming new combinations, and in some degree acting in concert, a sympathy existing between them. If one organ be, therefore, brought into healthy action, it will have a beneficial influence on the others; besides, the nervous system is much engaged in all the secretions, and when the organs are kept in a healthy condition, such a supply of nervous energy will be required as to relieve the whole nervous system—an object of very great importance to epileptic subjects. We have met with intelligent epileptic and nervous

* The infusion of juniper berries is a good diuretic; but that of the buchu leaves is the most certain diuretic with which we are acquainted; and being at the same time what is termed a nervine medicine and a carminative stomachic, we have always given it a preference. For the effects of a diuretic medicine, in unloading the sanguiferous system, see page 107.

subjects, who, in consequence of disturbed brain, with increased heat of the head, and diminished heat of the extremities, &c., have attributed their sufferings to an accumulation of nervous fluid in the brain, in consequence of the nerves not performing their office; and we are much inclined to believe that this is the case in many nervous affections, and especially in epilepsy.

The practice of Abernethy, of exhibiting five grains of the blue pill every or every other night, to promote the secretion of the liver, generally proves very beneficial to epileptic patients; but when continued so long as to affect the gums, or produce what is termed mercurial excitement, or fever, it uniformly increases the frequency and violence of the paroxysms; and as we have known this effect to be produced by two doses of the blue pill, the remedy should be administered with great caution, and its effect on the nervous system most carefully watched.

It is common for practitioners to have immediate recourse to bleeding, during an epileptic paroxysm. When the system is in a plethoric state, or when the paroxysm has been brought on by a preternatural determination of blood to the brain, this practice is no doubt proper; but when the system of the patient is in an opposite state, or when he is of a leucophlegmatic habit, abstraction of blood is decidedly improper.

As auxiliaries to the aperient pills of alcaline

extract of jalap, we may notice the cold shower-bath, three times a week*, the assarabacca snuff, (a pinch once a day when the stomach is empty,)† moderate exercise, a medium diet, and flannel next the skin.

In a case of epilepsy, to which we paid great attention, we found an aperient medicine, exhibited every day so as to keep the bowels in a regular state, and infusion of rhatany root, with carbonate of soda and tincture of buchu leaves, more beneficial than any of the remedies which have been lately recommended as infallible specifics: but notwithstanding his general health was much improved, and the greatest attention was paid to every circumstance that was likely to favour the disease, or to keep off a paroxysm, such as promoting the secretion of the nostrils, keeping the head cool and the feet warm, avoiding full meals, and pleasantly occupying the mind; the patient was always suddenly attacked with violent fits, whenever the wind shifted from the West or South to the East or North-East.

Epilepsy frequently appears in childhood. On

* We have thought the efficacy of this remedy has, in some cases of nervous affections of the head, been greatly promoted by the patient standing in a tub of *warm* water (nearly to the knees), during its use.

† This article, by increasing the secretion of the nostrils, certainly relieves the brain; and, by exciting sneezing, seems to equalise the circulation in the system.

such cases Dr. Hamilton makes the following very judicious remarks, in his work on the " Utility of Purgative Medicines."

" It acquires a hold, and is confirmed by the *repetition* of the fits, till their frequency and the force of habit fix it, and make it a constitutional disease for life.

" It is not my present purpose to inquire in what manner the functions of the organs more immediately affected by an epileptic paroxysm are influenced, so as to give *permanency* to the disease. The uncertainty of the theories proposed on this subject, and the little benefit that arises from them in practice, hold out little inducement to enter on discussion. It is, however, I believe, generally understood, that the *first attacks* of epilepsy are not always primary, but are frequently the effect of *particular* irritation of the mind or body, of which there are many instances. When no other is evident, the *loaded intestine*, and the change induced on its contents, may be suspected of giving the irritation in question.

" In fact, practitioners have had this circumstance in view; for they enumerate worms in the intestines, or marasmus, as I understand their language, among the causes of epilepsy. Surely, therefore, this consideration suggests another cogent reason for watching the rise and progress of marasmus*. And it will induce us, on the *first*

* See an account of this state of system, under the head of the Leucophlegmatic Habit.

attack of epilepsy in children, arising from an uncertain cause, to set on foot the most decided and active course of purgative medicines; lest we, peradventure, allow the disease to strike root, while we are idly employed in the exhibition of inert and useless vermifuge medicines, or, are groping in the dark in quest of other causes of the disease, or of uncertain remedies for their removal."

As to the varieties of epilepsy enumerated by Cullen, produced by injury of the head, severe pain, the action of poison, repulsion of cutaneous eruptions, disordered stomach, mental agitation or over exertion, excessive loss of blood and debility, these causes would not excite the disease if the system was not predisposed to it, or some organic mischief did not exist in the brain. They may produce convulsions, but there is a great difference between simple convulsions and epilepsy.

In all cases of epilepsy, it is of great consequence to keep the nervous system in a quiet state, and especially those organs with which the brain more immediately sympathises. Although the cause, as structural disease in the brain, cannot be removed, it may be rendered dormant, by tranquillising the nervous system. With this view, all the mineral and vegetable anodynes and derivative irritants have been recommended, and each has had its warm advocate; especially the Prussic acid, colchicum, hemlock, henbane, deadly nightshade, arsenic, quinine, sulphate of quinine, aconite, &c. By rendering the system unsusceptible of epileptic

derangement for many months, by the regular, judicious use of an anodyne, the local cause may undergo such a change as to remain dormant for life. Such remedies are, therefore, entitled to attention. As to arsenic, nitrate of silver, &c., we have generally found them injurious, by disordering the general health. Poisons have, no doubt, proved beneficial in the practice of some physicians, probably by bringing the power of the system, termed the *conservative*, into action, so as to remove visceral obstruction, &c. Many nervous diseases may, no doubt, be cured, by continuing the body, for a certain time, under the influence of a poison.

CHAP. XXI.

COSTIVENESS OF INFANTS.

The costiveness of infants, like that of adults, is often hereditary or habitual; but with the former, the period which constitutes the complaint is much shorter. The bowels of an infant, not constitutionally costive, may be said to be confined if they are not relieved two or three times a day; and what is considered a regular state in an adult, viz. one fæcal evacuation daily, is in an infant a disorder, and very frequently the precursor of some formidable disease, either of the head, chest, or belly. After the age of two or three months, the bowels are in general in an opposite state to that of costiveness, from the prevalence of acidity, in consequence of the stomach being overloaded with food, which rapidly runs into the acetous stage of fermentation. Costiveness is, however, so common among newly-born infants, that it is a practice with accoucheurs to send an aperient mixture for the infant with the medicines for the mother, for the purpose of carrying off the black matter, termed *meconium*, which, from its tenacity, is a

common cause of obstinate constipation. This substance sometimes adheres with so much pertinacity to the internal surface of the large intestines, as to resist the operation of an active purgative. This secretion (of the use or nature of which physiologists of the present day maintain different opinions), being only found in the colon and rectum, is evidently excrementitious, and affords a satisfactory proof of the truth of our assertion, that the principal office of the colon is to separate foul matter from the blood, or, in other words, to secrete fæcal matter. If it were chiefly bile, it would be found in the portion of the intestines through which it must pass to the colon; but so far from this being the case, bile has not been found in the duodenum of a full-grown fœtus born dead. It is, therefore, probable it consists of impurities which have been separated from the blood by the internal surface of the colon, during the growth of the fœtus, resembling the critical black fæcal evacuations of melancholic subjects. Whatever may be its nature or its use in the fœtus, experience has proved that if it be not carried off by the *first* milk of the mother, (which is the best remedy,) or by an aperient, it will in a few days disorder the intestinal canal, and, by disturbing the general health, occasion a cutaneous eruption and irritative fever. When the infant is deprived of the *first* milk, which, in consequence of bad nipples, frequently happens, or in case the first milk should not succeed in cleansing the bowels, an aperient

remedy should be administered. For this purpose, it is common to exhibit a few grains of rhubarb powder, or a tea-spoonful of castor oil, or syrup of roses. A great objection to the first article is, its leaving a tendency in the intestinal canal to constipation: to the use of castor oil we object, because it is very apt to nauseate or disorder the stomach, and to produce griping pains: and as to the syrup of roses, it does not act as an aperient unless it becomes sour in the stomach, the common consequence of which is, the bowels are disordered, and continue in a state of irritation for many weeks.

The collection of matter (meconium) being in the colon, an aperient clyster will succeed in removing it effectually in a few hours, without disordering the stomach or the upper part of the intestinal canal, in which digestion is completed, viz. the duodenum. In general, an injection of a quarter of a pint of fresh cheese-whey, or butter-milk, will fully answer the purpose of emptying the rectum and colon; but as the matter is often very tenacious, it is always right to dissolve in it a tea-spoonful of Epsom salt, or eight grains of aloes, with the view of gently stimulating the internal surface of the large intestines. If neither cheese-whey nor butter-milk can be obtained, thin gruel, with a little Epsom salt, or aloes in powder, will afford a good substitute. It is a common practice with nurses, in cases of costiveness of infants, to introduce into the rectum a piece of

soap or pledget of lint or fine rag, which, by distending the part, brings the diaphragm and abdominal muscle violently into action, occasioning what is termed straining or bearing down. If there be no fæces in the rectum, such efforts will not succeed in producing an evacuation; but if they be kept up by the mechanical action of the remedy, the consequent determination of blood to the head is very likely to disorder the brain, and in infants of a peculiar constitution or temperament, the remedy has no doubt proved an exciting cause of watery head or convulsions.*

When costiveness exists after the *meconium* has been completely removed, the best aperient medicine is jalap, on account of its not disordering the stomach or duodenum. It may be given in conjunction with an aromatic, as the following mixture:

> Take of the alcaline extract of jalap, ten grains, or jalap powder, fifteen grains; simple syrup, one drachm; dill-seed water, seven drachms.—Mix. From two to three tea-spoonsful to be given every three or four hours, until it produces the desired effect.

* About three years since we met with an instance of an infant having been left in a bed three hours with this remedy introduced into the rectum, during the whole of which time it continued straining. The following day inflammation of the brain came on, which terminated in an effusion of serum, termed watery head.

If this composition should not succeed in unloading the bowels, one grain of calomel may be added to each dose. In some obstinate cases of costiveness in infants, Dr. Dunglinson states he has found large doses of aloes in powder to succeed in emptying the intestines, after the usual remedies had been ineffectually employed. The extract of aloes, on account of its stimulating action on the rectum, being very rarely given to infants, Dr. Dunglinson has thought proper to give the following reason for his having prescribed large doses of it in such cases.

"I was first induced," says he, "to employ this medicine so largely, from the very high eulogiums I had heard pronounced upon it by Dr. Hamilton, the present celebrated Professor of Midwifery in the University of Edinburgh, to whom the idea of administering it was suggested, by observing, in a laboratory, where he had been placed by his father for the purpose of being instructed in pharmacy, that the syrup of buckthorn (so called), which they were in the habit of vending to mothers of families to be given to their children, was usually formed extemporaneously of aloes dissolved in treacle; and upon making inquiries of those who had purchased it, he found that no bad effects had resulted from its administration. He consequently formed the determination of trying it in his own practice; when he found it to be not only a successful agent when other means had failed, but also that it was rarely rejected by the stomach, acted mildly, was

perfectly safe, and but seldom objected to by young infants. To older children, however, in whom the taste generally becomes exquisitely sensible, the last observation does not generally apply. In all the encomiums passed upon the use of aloes as a purgative, I can cordially concur. In some cases of constipation, and in others of diarrhœa, apparently occasioned by the retention of feculent matter in the upper portion of the intestines, I have seen its administration productive of the most happy effects. It has been but rarely objected to by children; and its use has never, to my knowledge, been attended with griping or any other unpleasant symptom."

In one case of obstinate constipation attended with fever, the Doctor ordered a drachm of socotrine aloes to be dissolved in an ounce of simple syrup, and a tea-spoonful to be given every two hours, with four grains of scammony and two of jalap; and these remedies were continued till the infant had swallowed three vials of the syrup, containing no less a quantity of aloes than three drachms, when the desired effect was produced.

In the minds of several practitioners, an objection has been raised to the use of all potent purgatives in constipation and other diseases of children; and there can be no question but that they should not be had recourse to until after the failure of the milder means. The objection, however, in many cases, (Dr. D. thinks,) arises more from theoretical deduction than from any bad

effects which have been really observed consequent on their use; the unpleasant symptoms being more frequently occasioned by the disease than by the remedy.

On the use of calomel, a very popular remedy in this country for infantile constipation, Dr. Dunglinson makes the following judicious remarks:

"To calomel, also, some individuals strongly object, in the constipation of infants—from salivation having been occasionally induced by it. This is, however, so rare an occurrence, that I have myself never witnessed such an instance under the age of two years: and the late Dr. Clarke, whose experience was most extensive and diversified, has remarked, that under various circumstances he had prescribed mercury, in very large quantities, and in a great number of cases; but that he never produced salivation, except in three instances, in any child under three years of age. Where such cases do occur, they ought to be ascribed to some particular idiosyncrasy or susceptibility in the individuals, and only to be esteemed exceptions to a general rule. I have administered calomel freely in infantile diseases, and can safely assert, from the results of such practice, that it is a safe and efficacious purgative, and one of the most valuable which we possess, owing to the smallness of the bulk in which it may be exhibited, and in the absence in it of any disagreeable flavour. After three years of age, its repeated administration cannot be so freely indulged as previously; but when joined

with rhubarb, jalap, or scammony, it forms compounds of considerable energy, on the administration of which, singly or alternately conjoined, if necessary, with infusion of senna, and cathartic clysters, we generally place our confidence."

With the late Dr. Cam, an eminent physician of Hereford, the basilic powder was a very favourite purgative medicine in cases of constipation of infants. It not only carries off fæces, but also slime and worms, and, by removing obstruction in the mesenteric glands and liver, greatly improves the general health.

We lately met with a French physician of some eminence, who assured us that he had found a solution of croton oil in alcohol, rubbed over the abdomen, to excite *general* purging, viz. purging of the whole alimentary canal, and in some instances even vomiting, after calomel, senna, and other active remedies had failed.

Dry friction over the bowels, and along the course of the spine (with a warm hand), and exercise, are not only powerful auxiliaries to aperient medicine in cases of constipation of infants, but generally prove a preventive. For infants of a florid complexion and full habit, ripe fruit, taken twice or three times a day, generally succeeds in preventing costiveness; but in pale, languid, or those of a leucophlegmatic habit, it is apt to disorder the stomach, and to favour the production of worms. The seeds of raisins, currants, gooseberries, and strawberries, being very astringent,

often counteract the aperient property of these fruits; and as they generally pass whole through the alimentary canal, although they impart their astringent quality to the contents of the stomach, they often, by their mechanical action, excite considerable irritation in the lower part of the rectum. Experience has satisfied us that a *vegetable* diet, calculated to obviate costiveness in infants, is as likely to disorder the general health as the malady itself. See *Treatment of Costiveness of Ricketty Children*, Chap. XXII.

Costiveness in infants, after the age of three months, is so very uncommon, that we would advise the parents to examine the drawers or box of the nurse for *the cause*. There they will probably find a bottle of Godfrey's Cordial or laudanum to give it when restless, in order that they may secure some rest for themselves.

MANAGEMENT OF THE BOWELS IN PECULIAR TEMPERAMENTS.

CHAP. XXII.

COSTIVENESS IN LEUCOPHLEGMATIC,* VERMINOUS, OR RICKETTY TEMPERAMENT.

Costiveness has nothing to do in producing the disease of children termed the rickets, the morbid condition or disorder of the constitution, of which the affection of the bones is a consequence, generally following an opposite state of the bowels; but when the disease is established, although the bowels are not absolutely confined, (the patient generally having one or two small motions daily,) yet they are in a very indolent state, and both the stomach and intestines loaded with slime to such a considerable extent, as to occasion imperfect digestion, and to prevent the conveyance of chyle to the mass of blood by the lacteals. This accumulation favours the production of worms, and is a common cause of tumefaction of the mesenteric

glands, which lays the foundation of the species of atrophy termed mesenteric consumption, to which many thousand children annually fall a sacrifice in the metropolis. The mechanical effects of distended bowels in ricketty children, are generally very injurious. By pressing on the backbone, they occasion distortion; and by forcing up the diaphragm, and distending the false ribs, they prevent the due expansions of the lungs, and distort the chest. Hence it is common for ricketty subjects, even at the age of nine years, to die of pulmonary consumption. In such cases, a brisk purgative medicine is necessary once or twice a week, to carry off the accumulated slime; and for the purpose of removing the obstruction of the mesenteric glands, or of the liver, an addition of mercury is necessary; as the following:

> Take of rhubarb powder, 7 parts; prepared calomel, 1 part.—Mix.

The *basilic powder* was a very favourite purgative in cases of rickets, or costiveness of leucophlegmatic children, with the late Dr. Cam, of Hereford, and the late Dr. Cheston, of Gloucester; and we have often witnessed its beneficial effects. It is, however, too drastic a medicine to continue twice a week, for a longer period than a month. It is an excellent purgative to commence the attack, but after it has reduced the size of the bowels, the composition of rhubarb and calomel may be substituted for it.

The patient will derive little benefit from the dislodgement of the accumulated slime, and the deobstruent effects of the mercury, unless a mild tonic medicine be administered during the intervening days. The following mixture we have found most beneficial in strengthening the stomach and bowels, and in removing the leucophlegmatic condition of the body:

> Take of alcaline liquor of iron, alcaline tincture of fumitory, of each half an ounce; extract of rhatany root, 1 drachm: lime water, 7 ounces.—Mix.

The dose of this mixture is, from one to two table-spoonsful two or three times a day. The tincture of fumitory is not only a good stomachic in cases of rickets, but an excellent deobstruent.

The *granulated* tin was frequently prescribed by Dr. Blount, of Hereford, in cases of rickets and worms, with a view of mechanically stimumulating the internal surfaces of the stomach and intestines, so as to throw off the accumulated slime; and in many bad cases, particularly of the leucophlegmatic habit, which may be termed the verminous constitution, attended with enlarged bowels and indigestion, we have known this mechanical stimulus prove more beneficial than the Peruvian bark, and other powerful tonic medicines.

An infusion of the bark of the white fir (made by infusing six drachms of the bruised bark in a

pint of boiling water, in a close vessel for two hours), in the dose of one or two table-spoonsful, is also an excellent remedy for rickets, and corrector of the verminous habit. Friction over the bowels and limbs, and exercise, especially on horseback, are important auxiliaries, as are also sea-air and cold bathing.

The tincture of muriate of iron, in the dose of five drops to twelve, in a little water, two or three times a day, was a very favourite medicine with the late Dr. Clarke in cases of rickets. When the system is very languid, and the skin pale and flabby, it is certainly an excellent remedy; but when there is a preternatural determination of blood to the head, and when the constitution is feverish, it is very apt to disorder the stomach. A native chalybeate water, as that near Brighton, we should prefer to any artificial preparation of iron. The disordered state of system, of which the deficiency of ossific matter in the bones, termed rickets, is the consequence, has been attributed by some writers to the presence of worms in some part of the alimentary canal; but worms, in such cases, are like the affection of the bones, the *consequence* of the state of general health, and the same disordered state of body occurs as frequently without worms as with them. Indeed, we think practitioners of experience will agree with us, in an opinion we have long formed, and which in our minds further opportunities of observation have confirmed, that there exists a peculiar constitution,

which favours parasytical production, as external vermin, worms, hydatids, ringworm, tubercles, warts, scirrhus, cancerous ulceration, encysted tumours and other productions, which possess a peculiar vitality, dependant on the body for nourishment and heat. To us, such a constitution or temperament being as evident as the scrofulous, erysipelatous, nervous, or any other, we have termed it *verminous*, and in the treatment of the local affections, have always directed our attention to its correction.

Dr. Hamilton, senior physician to the Royal Infirmary of Edinburgh, has given, in the last edition of his Treatise on the Utility of Purgative Medicines, an excellent practical chapter on this constitution in children, under the name of *Marasmus*, which he thus defines:

"A sluggishness, lassitude on slight exertion, depravity and loss of appetite, wasting of the muscular flesh, fulness of the features and paleness of the countenance, swelling of the abdomen, an irregular and generally a costive state of the bowels, a change in the colour and odour of the fæces, fetid breath, swelling of the upper lip, and itching of the nose, mark the beginning of the disease.

"When these symptoms have continued for some time, they are followed by alternate paleness, and flushing of the countenance, heat and dryness of skin, feeble and quick pulse, thirst, fretfulness, increasing debility and disturbed sleep,

during which the patients grind or gnash their teeth, and are subject to involuntary starting, and twitching of different muscles.

"*Every* case of marasmus does not *necessarily* include *all* the symptoms which I have enumerated. *Different* combinations of them give a *variety* of the disease, which is, however, in general, readily known and distinguished.

"Marasmus appears most commonly among *weak* and *infirm* children, whether they are so from *delicacy* of constitution, or from *incidental* causes. It is particularly prevalent in large and populous cities, where children are deprived of ready access to exercise in the pure air, and sicken and pine in the nursery; or when they are confined in crowded school-rooms, whither they are sent, partly for the purposes of education, and partly, to use a common phrase, with the view of being kept out of harm's way. Children also, who are employed in manufactories, where their occupation and confinement in impure air are such as to weaken and enervate them, are liable to be attacked with this disease. Irregularity in diet and improper food also give rise to marasmus. We accordingly observe it to prevail most commonly in autumn, the season which affords opportunity for eating unripe fruit and vegetable articles from the garden."

Speaking of the causes of this state of constitution in children, the Doctor states, that he has remarked, that during the long period he has held

the appointment of Physician to George Heriot's Hospital for Children, he scarcely recollects an instance of it (marasmus) among the children in that institution; which he attributes to the healthy situation of the building, to the cleanliness and free ventilation of every part of it, to the wholesome nourishing food, and to exposure to pure air while enjoying their infant sports.

The Doctor, instead of attributing the general languor and lassitude, which precedes confirmed marasmus, to the baneful effects of worms, considers torpidity, or weakness of the alimentary canal, as the immediate cause. "From this," says he, "proceeds costiveness, distension of the bowels, and a peculiar irritation, the consequence of retention of the fæces;" and he has accordingly been long in the habit of employing purgative medicines for its cure, with the view of removing indurated and fetid fæces, "the *accumulation*," says he, "perhaps *of months*;" and as this object is accomplishing, he has observed the appetite gradually to improve, and the strength of the system to increase.

The Doctor divides the disease into two stages, viz. the *incipient* and the *confirmed*. The first embraces the period of disease till symptoms of fever occur, when the second commences, and continues to the end. During the incipient stage, the bowels not being altogether torpid and inactive, he recommends mild purgatives (as the extract of jalap, with a small proportion of calomel),

about twice a week, which he has generally found to effect a cure. During the second, or confirmed stage of the disease (manifest danger threatening the patient, whose remaining flesh and strength are rapidly wasting by the supervening fever, prostration and depravity of appetite withhold necessary nourishment, while the more inactive bowels and greater bulk and fæces throw additional difficulties in the way of cure), the Doctor recommends an *active* practice, with the view of stimulating the intestines, and of removing the collected mass. These ends the Doctor has ascertained, by long experience, to be best obtained by giving small doses of a purgative medicine, and by repeating them frequently, so that the latter doses may support the effects of the preceding ones; and he has found, when the bowels once opened, stronger purgatives, given at longer intervals, will accomplish the cure.

In selecting purgative medicines, the Doctor advises practitioners to flatter the taste of their young patients. Powdered jalap root he thinks is not altogether unpleasant; and the mild neutral salts (as the Rochelle or the tasteless purgative salt), dissolved in beef-tea, he considers *convenient* purgatives; " but calomel," says he, " will prove, on several accounts, the most certain and useful remedy of this kind." He has found this preparation of mercury to be equally useful in both stages of the disease; " but," says he, " *great*, attention must be given during the exhibition of it

without which, as the offensive state of the breath prevents us from recognizing the mercurial fetor accurately, the mouth may be affected unnecessarily and unexpectedly." The Doctor, during the employment of appropriate purgative medicines, has found it necessary to inspect the alvine evacuations daily, in order to have full information of their effects. "The smell and appearance of the fæces," says he, "are a criterion of the progress we make in the cure, and direct the farther administration of the purgatives. This inspection is the more necessary, as we cannot expect the information we want from our little patients; and we will often look for it in vain from the attendants, whose prejudices, and whose ignorance of our views, prevent their seeing the propriety of the inquiry.

"During the prevalence of the disease, the fæces are dark and fetid; they vary from a hard consistence to that of clay, and are often fluid; and such they appear upon the first exhibition of the purgative medicines. I observe that the recovery of the sick keeps pace with the return of fæces of natural colour, form, and smell; a change which the repetition of purgatives does not fail to produce."

During the use of purgative medicines, in the second or confirmed stage, in which there often exists a great degree of obstinacy, or the conservative power remains nearly dormant, Dr. Hamilton recommends nourishing food, not

only of easy digestion, but suited to the taste of the patient, as well as a moderate use of wine.

For some time after the state of constitution has been corrected, Dr. Hamilton advises an occasional use of a gentle aperient medicine, to prevent accumulation of fæces, which is very apt to take place after such a complaint, and if neglected, to occasion a relapse, which is certainly more to be dreaded than the first attack. Towards the close of the disease, a mild tonic medicine will be necessary to hasten the period of convalescence, and to restore the patient to health, as the following:

> Take of essential salt of bark, 1 drachm; infusion of roses (London Pharm.) 7 ounces; sulphate of iron, 4 grains; syrup of mulberries, half an ounce.—Mix. From one to two table-spoonsful to be taken two or three times a day.

This mixture is so very pleasant to the palate, that children may be persuaded to take it as wine. Dr. Hamilton recommends lime water, infusions of vegetable bitters, as cascarilla, camomile flowers, gentian, &c. and chalybeates (preparations of iron); but they are so unpleasant to the taste, that the disgust they produce more than counteracts their salutary effect on the stomach. Dr. Hamilton concludes his chapter on this state of constitution of children with the following very judicious remarks:

" As marasmus proceeds from symptoms of

slight indisposition, through a series of others which become daily more and more obstinate and dangerous; as the first deviation from health is easily obviated by the stimulus of purgative medicines, which brings the sluggish bowels into regular action, and evacuates their contents; and as the disease attacks the young and thoughtless, who can hardly explain their feelings, *it behoves mothers, nurses, superintendants of nurseries and of manufactories, to whom the care of the young is committed, to watch over their charge with assiduity.* Prostration of strength, depravity of appetite, a changing complexion, tumefaction of the abdomen, scanty and unnatural stools, and fetid breath, indicate approaching danger. When these, therefore, are observed, assistance should be asked; by the prompt interposition of which much eventual distress, and even death itself, may be prevented.

"Other considerations weigh with me when I call for this assiduity. Marasmus has a close connexion with other formidable diseases, and either precedes or seems to accompany them: of these, I shall at present notice two,—viz. hydrocephalus and epilepsy.

"Hydrocephalus internus, the bane of infancy and of childhood, a disease big with much suffering, and of a fatal tendency, has at all times occupied the attention of physicians. They have endeavoured to investigate its nature, to assign the causes which induce it, and to propose curative

indications. Different sentiments on these subjects have led them to employ numerous and discordant remedies. Nevertheless, even now they are not agreed as to the causes of hydrocephalus, so involved are these in obscurity. Neither have they made the most distant approaches towards the discovery of a certain remedy for it."

After glancing at the different theories that have been broached respecting the causes and nature of watery head (hydrocephalus), which have induced his followers to employ numerous and even discordant remedies, the Doctor very justly observes,

"This much is known, that hydrocephalus often steals slowly on, with symptoms resembling those of incipient marasmus. Till some better theory, therefore, be established, it is not unreasonable to suppose, that the marasmus, of which I have treated, may, on some occasions, give rise to hydrocephalus, by impairing the vigour of the constitution, and by favouring serious effusion into the ventricles of the brain.

"This conjecture merits the greater attention on this account, that while the symptoms of hydrocephalus resemble those of incipient and even of confirmed marasmus, they have been removed by the diligent exhibition of purgative medicines. The truth of this observation has been repeatedly confirmed; and it affords an additional reason for the exercise of watchful attention to prevent the confirmed state of marasmus, which may, in more

instances than we are aware of, have been the forerunner, if not the cause of hydrocephalus."

The most efficacious correctors of the verminous constitution, or the state of system which Dr. Hamilton has noticed as constituting the first stage of marasmus, are, preparations of iron, and what may be termed the terebinthinate tonic, viz. the bark of the white fir. These may be given in conjunction, as the following mixture:

> Take of infusion of the bark of the white fir, six ounces; tincture of muriate of iron, half an ounce; syrup of mulberries, four drachms.—Mix. A large table-spoonful to be given twice a day.

If the patient be subject to acidity in the stomach, or if the urine deposits a brickdust-like sediment, the following mixture may be substituted for the preceding one:

> Take of alcaline tincture of iron, two drachms; infusion of the bark of the white fir, seven ounces; simple syrup, half an ounce.—Mix. From one to two table-spoonsful to be taken two or three times a day.

These two latter mixtures are admirable preventives of worms, and also of dropsy in the leucophlegmatic habit of adults.

The culinary salt, taken as it is in this country, with articles of food, is a powerful corrector of the verminous constitution, or preventive of worms, not

altogether from its stimulating the stomach, and thereby promoting digestion, but by its peculiar chemical action on worms, and probably their ova; for on graminiverous animals it is a powerful vermifuge, causing their expulsion from the alimentary canal, without acting as a purgative. In Ireland, where, from the bad quality of the food, the lower classes are very subject to worms, salt dissolved in water is a popular remedy, and we are told that it never fails to act as a vermifuge. Lord Somerville, in an Address to the Board of Agriculture, gave an interesting account of the baneful effects of a punishment which formerly existed in Holland. "The ancient laws of the country ordained men to be kept on bread made without salt, as a severe punishment. The effect was horrible--the wretched criminals having been devoured by worms engendered in their own stomachs." Mr. Marshall has published a case to illustrate the power of salt in preventing the generation of the human worm. A lady, in consequence of having an invincible antipathy to salt, was dreadfully infested with worms during the whole of her life. Sir John Pringle, finding that salt taken at meals promotes digestion, supposed that a *little* salt promoted the putrefaction of meat in the stomach, and thereby accelerated digestion; and observing a larger quantity to interrupt digestion, he concluded that a large quantity had a contrary effect, viz. of giving it the power of resisting putrefaction. "Hence," says Dr. Paris, "salt is both a septic and antiseptic,

according to the quantity employed." The idea of digestion being effected by a putrefaction, is too antiquated and too ridiculous to notice; and as to the effect of a "larger quantity of salt in *destroying* digestion," an old woman of common observation would attribute it to its disordering the stomach, and not to any chemical action on the food.—(*See* effects of the Culinary Salt on the constitution, under the head of the Erysipelatous Habit.)

CHAP. XXIII.

COSTIVENESS IN THE NERVOUS TEMPERAMENT.

In the nervous temperaments of the human body, more than in any other, costiveness, or irregular bowels, or indigestion from morbid irritability of the stomach, is very apt to produce some serious general or local disorder.

Costiveness, or indigestion, renders a nervous subject very susceptible of the influence of various contagions, noxious effluvia, and unhealthy changes in the atmosphere, and is, therefore, a frequent forerunner of a variety of disorders of the body, and even mental alienation. During costiveness, not only the vessels of the brain, but those of the viscera of the belly, become overloaded with blood; hence, as Dr. Rouviere (President of the Board of Health in Paris) observes, nervous subjects, during costiveness, are melancholy, irritable, dissatisfied with others as well as themselves. Speaking of its influence on the mind of a nervous subject, he says, "Costiveness has unquestionably more influence over the fate of families, and even of empires, than most people are inclined to imagine.

Cromwell, the Protector of the English Republic, was of a nervous temperament, and had been long subject to it: Cardinal Richelieu, whose bowels were generally confined, notwithstanding the regular use of clysters, was generally morose and frequently relentless. How many events may not be pathologically explained, as arising from suppression of bile, to which Napoleon was subject. I will go further," says the Doctor, "and fearlessly assert, that frequently the thought of crime, in nervous subjects, originates in some visceral derangement from costiveness; and if some determined villains had experienced the soothing deterging effects of a visceral purgative medicine, they would probably have spared their victims. Could these monuments of a ferocious vengeance, —this ardent thirst for crime,—exist with the equilibrium of the vital powers, or when the whole nervous system is not disturbed by disorder of one or more of the viscera of the belly? Doubtless not. Health is one of the principles of wisdom; but unfortunately, *Health* and *Wisdom*, which may be considered sisters, are not inseparable; for health is frequently neglected. If the bowels, and of course the viscera of the belly, had not been overloaded, would Ravaillac have assassinated Henry the Fourth? or Damiens attempted the life of Louis the Fifteenth? or Louvel have stabbed the Duke de Berri? No! I dare not think it, if a visceral or antibilious purgative had previously operated."

About thirty years since, it was the fashion among medical men, regular and irregular, and invalids, to term nearly all the diseases to which human nature is heir, *nervous;* and for those of the higher classes of society, who had disordered their stomachs, or disturbed their general health by dissipation, to be nervous; and as long as these fashions prevailed, the legitimate physicians were as active in broaching new doctrines explanatory of nervous affections, and the proprietors of nervous cordials, &c. in advertising their *infallible* remedies, as certain legitimate physicians and licensed quacks of the present day are in propagating new opinions of the use, &c. of the bile, and of the influence of hepatic or gastro-hepatic disorder, in disturbing the general health!

Of the two theories, the *nervous* is more consistent than the *hepatic;* for the primary moving powers of the animal machine residing in the cerebral system (the brain and nerves), and the functions of all the organs being dependant on nervous influence, most diseases, even those which do not originate in the nervous system, is more or less nervous, inasmuch as the nerves are more or less disordered by all; and it is not uncommon for the disorder of the nervous system to become more formidable than the primary affection, and even to continue after it has terminated. So satisfied are practitioners of experience and observation of this fact, that in the treatment of every disease, they always keep in view the state of the nervous system.

The term *nervous* is often used by non-medical writers and by patients, to express opposite states of the body; the former sometimes meaning by it strength, and the latter debility. When medical men apply it to the body, they mean the nerves are preternaturally sensible, receiving great impressions from very slight causes; but when it is applied to a local disease, it signifies that it is confined to the nerves of the part, whether they be in a state of increased or diminished sensibility. For instance, if a limb be paralysed, or the sensibility of its nerves diminished, the affection is termed *nervous;* and if the nerves be so morbidly sensible, that the slightest touch, or even a breath of air, is capable of exciting the most acute pain, as in tic doloureux, &c., it is also denominated *nervous.*

Of all the parts of the body, the anatomy of the brain is the most complex. Anatomists are well acquainted with the divisions, prominences, sinuses, fissures, and the different appearances this organ exhibits on dissection; but the most able physiologists of the age do not pretend to explain their different offices. From the anatomy and physiology of other organs, it is evident that every part of the brain, however small, has its use in the machine.

Messrs. Gall and Spurzheim, of Paris, have, within these few years, broached a new theory, which, *they* suppose, throws great light on the physiology of the brain. They pretend to have

ascertained that the brain is composed of a variety of organs (about forty), which perform the various operations of the mind, and they even point out those which perform different offices or functions; as the organ of attachment to life; the organ of preservation of life; the organs of the selection of articles of diet; of the external senses; goodness; of attachment; of murder, falsehood, theft, &c. &c.; and they therefore pretend to discover the dispositions or ruling passions of individuals, by the certain prominences of the skull, as indicative of the size of the organs which they cover. If this theory be correct, how are we to allow for the division of what is immaterial—a solecism in physics,—or to separate independant powers acting in different parts of the body? How are we, indeed, to account for the different powers of the body, as the vis insita, the vis nervosa, the vis conservatrix, or the vis medicatrix, &c.; and for the sympathies, direct, and indirect, which exist in the living body?

The converts to this theory contend, that a knowledge of it is of great importance, even to parents, in order to enable them to ascertain the innate dispositions of their children. When a prominence of the skull indicates an organ of vice to be large, the parent should endeavour to check its growth, by bringing forward the organs of goodness; as those of religion, philanthropy, parental affection, &c. Hence, then, these very organs, on which the powers or operations of the mind are dependant, are to be influenced through

the medium of the mind, which implies there is a super-addition to the organs. We have heard this fanciful theory much condemned, on the supposition that it favours the gloomy doctrines of materialism: but so far from this being the case, it refutes them; because the fact of one organ being brought into action by another, which is remote from it (allowing a variety to exist), and the concatenation of ideas which depends on a peculiar communication between them, prove that they are all under the influence of some power which cannot be demonstrated, and consequently immaterial.

We have paid some attention to the system of Dr. Gall, and we confess, although at first prejudiced in its favour, we have not discovered any thing to admire, except the fertile powers of his imagination. With respect to a knowledge of the dispositions or ruling passions of individuals, or of the anatomy of the human mind, with which physicians are so little acquainted, we are disposed to believe that the science termed physiognomy, or that of forming an opinion of the dispositions or qualities of the mind, from the features of the face, and expressions of the countenance, is a more certain guide than the splendid system of Gall. The late Mr. Sharpe (the first engraver of human countenances this or any other country has produced, and who, to enable him to diffuse, as it were, the *mind* of the person whose portrait he copied,

paid particular attention to the physiognomy of a great variety of animals), always formed an opinion of the ruling passions and dispositions of a person from the resemblance of his countenance to some brute; and we have heard him say that, governed by this guide, he rarely erred. He admired the countenances of the late Duke of Norfolk, and of the late Mr. Fox, because they resembled that of the lion. His biographer states, that he refused a considerable sum to engrave the likeness of the late Mr. Pitt, because his countenance was a composition of the expressions of a set of brutes of savage minds. Although a Whig, he always avoided the company of some gentlemen of the same politics, who were particularly desirous to become acquainted with him, because their features resembled those of a baboon, an animal of a filthy rapacious mind. He gratuitously engraved the likeness of Mr. Brothers, the pretended prophet, because he fancied he discovered in his physiognomy a superhuman simplicity. This celebrated artist considered himself gifted with metaphysical powers of the mind. Speaking of the atheistical doctrines of a *philosophical* bookseller, he emphatically observed, "His opinions serve his trade, and certain results of his trade flatter his vanity: but he as firmly believes in the existence of a God, and in a future state, as myself; and I want (said he) no further evidence of the existence of a God, than the

blades of grass over which I carelessly walk every day of my life." He, in fact, like the untutored Indian,

> "Saw God in clouds, and heard him in the wind."

The brain is generally considered to be the seat of sensation, the theatre of all the intellectual operations, and the uniting medium between the body and soul. The operations of the mind are not always influenced by a disordered condition of the brain; for an invalid, whose brain and nervous system are so excessively excitable as to be disturbed by "a breath of air," or to receive violent impressions from very slight causes, and although in such a state of debility as to be incapable of commanding the muscles of the upper and lower extremities, yet often possesses a very strong and steady mind, taking great pleasure in deep philosophical research, and is even capable of evincing great depth of reasoning on the most obtruse subjects, and of drawing correct conclusions. Indeed, nervous subjects, as the late Lord Erskine, and other advocates, have shewn much subtilty of reasoning, ingenuity of argument, and even corporeal strength, when engaged in defence of a client. We have known a very nervous nurse of a provincial hospital, who was often exceedingly distressed by slight unpleasant intelligence from her family, and agitated by an unpleasant occurrence, hold the limb of a patient during the amputation of it with great firmness, and apparently

without any feeling of sympathy; and a soldier who had been engaged in many sanguinary battles, whose nervous system was apparently callous, to faint on witnessing the same operation. It is also common to meet with persons possessing minds most acutely sensible (feeling for others' woes more sensibly than the sufferers themselves), whose nervous systems are peculiarly strong and firm; and also with persons whose nervous systems are extremely irritable, with minds devoid of any thing like sympathy or commiseration. The state of the mind, therefore, throws little light on that of the nervous or cerebral system. The fact of a nervous and debilitated person possessing a very strong mind, clearly shews, that certain operations of the mind are not mere secretions of the brain, as the advocates of the gloomy doctrines of materialism assert, but afford incontrovertible evidence, if any were necessary, of the super-addition to the body of an immaterial principle, termed the soul. The mind, however, is sometimes influenced by the disordered condition of the brain, becoming extremely irritable and fanciful. When it is directed to the state of the health of the body, the complaint is termed hypochondriacism. This affection, which is generally treated as imaginary, is as much dependant on corporeal disorder as any other malady; and the patient having no more command over his complaint than a person afflicted with gouty inflammation has over the pain, has as much claim to commiseration, and as great a right to

expect as much relief from medicine as any other invalid. When the mind fixes violently on any particular subject, as religion, politics, &c., it is apt to become *partially* diseased; and when it becomes diffused, or, as it is said, " abroad," *i. e.* fixing on no particular subject, but running rapidly from one to another, mania may be apprehended, which is generally dependant on some morbid condition of the brain.

Singularities or peculiarities of the constitution, which so frequently occur in practice, technically termed *idiosyncracy*, appear to be dependant on the nervous system. So general and common is peculiarity of constitution, that we may say, that almost every individual has, in some degree, a state of health peculiar to himself, independent of the morbid temperaments, as the sanguineous, the leucophlegmatic, the erysipelatous, the nervous, &c. &c. On some persons, a mild application to the skin will produce considerable inflammation, and this effect is sometimes occasioned by a simple ointment of bees-wax; and it is not uncommon for a mild article of diet, as veal, &c., to disorder the bowels. We lately met with a nervous patient, who was in the habit of taking two grains of opium (an article which is commonly administered to check diarrhœa, and which almost uniformly constipates the bowels) to act as an aperient; and he always found it operate as effectually and much more pleasantly than any of the class of opening medicines.

It is, therefore, incumbent on patients to acquaint their medical attendants with the peculiarities of their constitutions, and the duty of physicians not only to attend to such statements, but to obtain a thorough knowledge of them. The fashionable physicians, who generally estimate the *success* of their practice by the number of their fees, cannot spare time to listen to the narratives of their patients. Their duty (to *themselves*) is confined to a short ceremony of making an imposing exhibition of a watch and its ornamental appendages, a chain and seals, looking at the tongue, and writing a prescription, to entitle them to the fee, and in receiving it their object is attained. A certain system-monger, celebrated for eccentricity, thinks it waste of time to attend to any such "*irrelevant* nonsense;" for, let the complaint be chronic or acute, primary or symptomatic, and the peculiarities of the constitution ever so singular, they must give way to the blue pill and an aperient draught; and, although the peculiarities are not diseases, but dependant on original organization, even they must give way to his *blue pill* system. Peculiarity of constitution has been noticed as an objection to domestic medicine; but, so far from this being the case, we really think it operates in its favour; for, surely, the invalid, who is acquainted with his peculiarities, must be as competent, if not more so, to the treatment of his own complaint, as the physician who does not take the trouble to become acquainted with them. All diseases are more

or less modified by peculiarities, and, in some constitutions, a disease often requires an opposite treatment to that which is proper in another person; and the power of ascertaining the cause of such modifications is not to be acquired at any school, or even by extensive practice, but by knowledge obtained from the patients themselves. It was the practice of the late Dr. Campbell, of Hereford, and the late Dr. Reynolds, of London, always to keep in view the nervous system in the treatment of all maladies; and the most experienced practitioners are aware, that, in the treatment of diseases, there is more to combat in the constitution from nervous excitement or peculiarity than in the disease itself.

The sympathies existing between the different parts of the living body, not depending on proximity, have engaged the attention of ancient and modern physiologists; and to the physician and metaphysician these phenomena afford an extensive field for research and reflection. Sympathies, contiguous and remote, are, like the peculiarities of constitution, greatly dependant on the nervous system, and are no doubt much influenced by singularity and habits. Although the brain is the seat of sensation, the sympathy between it and the stomach is so immediate or direct, and that between the stomach and the other viscera so considerable, that the stomach may be considered the centre of sympathy. Mr. Abernethy, who attributes all local diseases to a disordered state of

the liver, stomach, and duodenum, admits, what indeed no surgeon of experience and observation will deny, that the stomach is often sympathetically affected. "When," says he, "I find that irritation of the *nervous system, however it may originate,* deranges the chylopoietic organs, and affects the stomach, bowels, and liver, apparently at the same time, I think it fair to infer, that these organs are equally operated on by the *same* cause. Disorder of the brain," he observes, "*may* affect the chylopoietic organs, and it is well known that this influence is reciprocal. The stomach is said to be chiefly concerned in producing these effects, but the cause of the sympathetic affection is probably more general. A fit of passion has produced jaundice, and the irritation of teething in children frequently suspends the secretion of bile, so that the stools are not in the least degree tinged with that fluid. If the brain can thus affect the liver, it is reasonable to infer, that the liver may reciprocally affect the head. It is very difficult to form an opinion relative to this subject; for, in the instances which have been mentioned, the affection of the liver may take place, *only because it forms a part of the digestive organs, and not from a* DIRECT *sympathy existing between it and the brain.* Still, however," says Mr. A., "I do not think it unreasonable to conclude, that irritation of the other chylopoietic organs may, as well as that of the stomach, disorder the source of sensation." Such is the sympathy existing between the brain and

stomach, that a disgusting object will often excite vomiting, and even some operations of the mind itself seem to act directly on that organ. The seat of grief appears to be the stomach, and the distressing feelings of the hypochondriac being generally referred to the region of this viscus, we have often been disposed to attribute the latter to some disordered or diseased state of the ganglions in its neighbourhood, the use of which is probably to keep up a nervous energy between the brain and the abdominal viscera, *i. e.* they are probably auxiliaries to the brain for the purpose of equalizing the nervous power throughout the contents of the abdomen. "Our bodies," says Mr. Abernethy, "are so constructed, that one part seldom suffers alone; and sometimes the most inconsiderable organ, when injured, excites the most violent affections." Some of the natural sympathies are very remarkable, and not to be accounted for by at least direct nervous connexion. The sympathy existing between the uterus and the stomach, and between the uterus and the glands of the breast, which secrete milk (mammary), is evident from the nausea which is attendant on pregnancy, and the swelling of the breasts, and even secretion of milk during the last stage of pregnancy, and also by after-pains being brought on two or three days after delivery, by drawing the breasts. The sympathy which exists between the brain and stomach is so great, that it is often extremely difficult to ascertain which is sympathetically disturbed. The

sympathy between the stomach and remote parts, in which no natural sympathy *apparently* exists, is often remarkably increased by disease. Hence, in cases of painful or irritative ulcerations in the extremities, a stimulus applied to the stomach will almost instantaneously aggravate the local disease, without disturbing the nervous system, or accelerating the circulation, and an anodyne taken into the stomach will as speedily allay pain in a remote part. We have known the stomach to be greatly disordered, immediately on the application of a caustic to an ulcer in the rectum; and it is common for even a robust man to experience a distressing sensation at his stomach, and to faint on introducing a sound or bougie into the bladder. When a part is affected with an irritative disease, the sympathy between it and the whole body is proportionably increased with that of the stomach. In cases of irritation in any part of the intestinal canal, the application of cold water, even to the feet or hands, will produce acute pain in the bowels, and even purging. The same degree of sympathy exists between the skin of the extremities with diseased lungs, heart, bladder, uterus, &c. An internal inflammation or irritation is sympathetically aggravated only by such applications that diminish the afflux of blood and nervous energy to the skin, as cold water and spirits; for, if stimulants be applied, although the sympathy between the diseased part and skin is considerably increased, they have a contrary effect on the internal disease to

that on the skin, by producing, as it were, a diversion in its favour; but if the internal disease be that of debility, a stimulus applied to the skin, as blister, mustard poultice, &c., has a stimulating effect on the internal disease, and these effects, as well as many others, involve the doctrines of sympathy in great obscurity.

The great link of sympathetic connexion is, however, the stomach and its ganglions. With this organ, the brain, the liver, the small and large intestines, the kidneys, the lungs, and even the joints and skin, sympathise. There are, however, particular sympathies in which the stomach is not concerned, as that between the breasts and the uterus, &c. The sympathy between the brain or the stomach and other parts is greatly increased by irritative disease: for instance, in irritative affections of the bladder, the sympathy between it and the stomach is so much increased, that what irritates the latter, will immediately aggravate the affection of the former. The same may be said of diseases of the uterus, kidneys, rectum, colon, bladder, or even of the extremities. Whether this sympathy be by nerves through the medium of the brain, that is, the brain is acted on by the stomach, and the brain re-acts on the disordered part, is doubtful; certain it is, that unfavourable intelligence or vexation, the first action of which is on the brain, will operate on such parts that are diseased, *i. e.* it will excite diarrhœa in persons whose bowels are morbidly irritable or diseased;

if the bladder be diseased, it will increase the irritation or mischief; if the uterus be disordered, it will act on it, so as to excite hysteric fits, and even suspend or increase its periodical secretions; and if the stomach be in a state of morbid excitement, it will excite vomiting. It often happens that the sympathetic affection of an organ will run higher than the primary disease, and, from the greater importance of the organ in the animal economy, will become the principal object of attention in the medical treatment: indeed, it is not uncommon for the primary disease to decrease as the sympathetic advances, and spontaneously to terminate when it (the sympathetic) has arrived to an advanced stage. This fact seems to prove that the sympathy between the two parts was not through the medium of the brain. Besides, if organs sympathised only through the medium of the brain, the ultimate sympathetic effect would be on the organ or viscus with which the brain most sympathises, as the stomach; which is not the case when the primary disease ceases, and the sympathetic one has advanced. Some partially educated physicians think they fully explain such sympathetic affection by terming it metastasis, by which they mean to say the disease is *translated* from the primary seat to the one it occupies; but whether it was conveyed by some peculiar power of nerves, by the circulating fluids, or by absorbent vessels, they will not so far enlighten the public, or rather expose their ignorance, as to hazard an opinion.

If fashionable or English university medicine were stript of its verbiage, it would soon cease to flourish even among the most ignorant classes of society. It would be fortunate for mankind if these philosophers of words could *metastasise* diseases of vital parts or of internal organs to the surface of the body. As we can generally account for many natural sympathies by nervous connexion of the parts, as the action of the diaphragm and expiratory muscles on irritating the inner membrane of the nostrils, vomiting on irritating the nerves of the upper part of the gullet, &c., it is probable that all sympathies depend on some nervous communication between the parts, which cannot be detected on anatomical examination. It certainly does not depend on similarity of texture, because parts sympathise which greatly differ in structure. The late Dr. Baillie thought, that the fact of deep-seated tumours, being dispersed by external mercurial friction, proves, that a sympathy existed between the absorbents of the skin and those of the tumour, because the ointment was certainly not conveyed directly to the tumour by the absorbent vessels of the skin. The action of the absorbents of the diseased mass was no doubt increased by the friction; and if the mercury was not directly conveyed to the tumour, it would reach it through the medium of the circulation; and had the mercury been introduced by the mouth, the effect of dry friction would have been equally efficacious.

A late writer, celebrated for fine flights of fancy, has described a peculiar sympathy, which he terms sympathy of equilibrium, in opposition to sympathy in its more general sense; by which he means the diminished action of parts near to that in which the mischief has taken place; as constipation attendant on inflammation of the stomach, the diminished irritability of the skin when an organ of the abdomen is inflamed: but the diminution of vitality of a part which takes place when an organ is inflamed, or in a state of morbid irritation, is not from sympathy, but from the increased determination of blood and nervous energy to the affected part; the consequence of which is, the other parts are deprived of their natural supply of blood and of nervous power. The sympathetic affection of an organ may vary a little from the primary affection, in consequence of some difference of structure; but, in essence, it is the same.*

* The word "sympathy," like many technicalities, is a very useful one to many classes of practitioners. There are many phenomena on which the doctrines of sympathy throw no light. For instance, a few drops of croton oil, rubbed over the tongue and palate in cases of apoplexy, although no part enters the stomach, will excite the action of the intestines, and that, too, without disordering the stomach. Some may account for this effect by its being applied to a surface which extends throughout the intestinal canal, not by sympathy, but by what we have termed *continuous* action; but if this be effected by the nerves of the part, how are we to account for the same effect being produced by rubbing the same remedy on the skin of the belly? In such case, we cannot attribute the operation to a peculiar power in the nerves to transmit the action to a part

Some physiologists have supposed, that one office of the nerves is to convey a subtile matter from the brain, which they have termed the nervous fluid. After the discovery of the supposed modified electric fluid by Galvani, some physicians imagined, that it was the same as the ner-

on which alone it can produce a certain effect, for the nerves of the skin are very remotely connected with those of the intestines. Again, in cases of inflammation of an internal organ, blood taken by leeches from the skin over the part, will make an impression on the distended vessels of the inflamed organ, often removing it, and generally allaying the pain, although the blood-vessels of the skin have no direct communication with those of the inflamed viscus, and although the quantity is much too small to produce any salutary effect, by reducing the general mass. Inflammation, again, of the membrane of a viscus will extend to that which is in contact with it, as a portion of the pleura of the lungs and that of the ribs, which is in contact, although the connexion by blood-vessels is remote. Whatever increases the secretion of urine, also rouses the action of the absorbent vessels. The functions of the viscera of the belly are also promoted, and a languid viscus brought into action, by the operation of an active purgative on the intestinal canal. The nitro-muriatic acid bath, although only applied to the legs, will excite purging and griping pains. The vapour of spirit of turpentine, taken into the lungs, will, in a few minutes, communicate to the urine a peculiar odour. These facts prove that there is a kind of continuous action, that is not to be accounted for by nervous connexion, and that there is an extra-vascular transmission of fluids and a reciprocity of action, independent of nervous influence, on which the doctrines of sympathy throw no light. They, and many more phenomena, shew that a power pervades the system, with which physiologists are little acquainted, and which completely refutes the arguments adduced in favour of materialism by some modern philosophers.

vous fluid, and many results of experiments on animals have been published to prove their identity. About fourteen years since, we published a system of medicine, founded chiefly on this supposition; but, on making experiments on animals, we discovered, instead of the nerves being such excellent conductors of the galvanic fluid as the advocates for the theory had stated, that the muscles of the body were better conductors. The opinion was afterwards taken up by Dr. Philip, who thought that he had so far satisfactorily ascertained that the galvanic fluid was the same as the nervous fluid, that when an organ was deprived of the latter, by cutting off its principal nervous communication with the brain, it performed its functions when supplied with galvanic fluid. The experiments were repeated by others as well as by ourselves, but no such results appeared. The manner in which the Doctor performed his experiments, prove that he was unacquainted with the science of galvanism or electricity; for the fluid, instead of passing by nerves to the stomach, as he imagined, travelled by the skin in a direct line from the positive to the negative pole.

The physiologists who suppose that a subtile fluid, similar to the galvanic, is conducted by the nerves from the brain, have not ventured to risk an opinion as to the source of the fluid, *i. e.* whether it be secreted by the brain from the blood; whether it be electric fluid modified or anamalised by the brain; or whether it be the consequence of the

decompositions which take place in the lungs during respiration. If a fluid analogous to the electric or galvanic were really conveyed from the brain by the nerves to every part of the body, one would suppose that its existence might be easily demonstrated; but although a great variety of attempts have been made by ingenious philosophers to collect it, by surrounding the body with non-conductors of the electric or galvanic fluid, and by dividing the principal nerve of the thigh, and even the spinal marrow, and drawing forward the divided extremities with a non-conducting forceps, so as to bring them nearly in contact (in a dark place), nothing like a galvanic-electric fluid has appeared, nor did either end evince any thing like an attractive or repulsive power *. The

* Since writing these remarks, we find, by an article in the Parisian Journal of Physiology, that Dr. Breton, Professor of Medicine at Grenoble, has lately communicated to the President of the French Academy, some observations relative to a development of electrical phenomena during an epileptic paroxysm. Should the professor not be a physiological dreamer, like the generality of the physiologists of France, the fact will greatly strengthen the theory of our scientific countryman, Surgeon Mansford, of the dependance of epilepsy on an accumulation of electric matter. The epileptic fit is more probably the consequence of an interruption of the reciprocity of action between the nervous and muscular system. Another dreamer, not being able to account for the source of a sufficient supply of the galvanic fluid for the purposes of keeping up the vital powers, has discovered two parts in the structure of nerves, one of which he supposes conveys the fluid from the brain, and the other re-conducts it to the brain!!

celebrated physiologist, Hunter, who believed for some time that a subtile fluid was conveyed by the nerves from the brain (the nervous fluid), after many experiments, and much reflection on the nature and source of the vital principle, became satisfied that the brain does not secrete a subtile or any other fluid, and that it and the nerves are supplied with a vital principle, in the same manner as the muscles and other solids, principally, if not wholly, from the blood. He supposed that the source of primary living power of the body (materia vitæ profusa), was the blood instead of the brain and nerves, because, when the brain is deprived of blood it dies, and when the circulation is completely obstructed in a limb, the nerves, with the other parts, die at the same time; but when the nervous connexion of a part with the brain is entirely cut off, the life of it continues so long as the blood is transmitted through it. The following is the substance of Mr. Hunter's theory of the living principle, or *materia vitæ diffusa.*

"Blood itself is not only alive, but is the support of life in every part of the body; for mortification speedily follows, when the circulation is cut off from any part. This fact shews, that no part of the body can be considered as a *complete living* substance, producing and continuing mere life without the blood, so that the blood makes one part of the compound; without which life would neither begin nor be continued. Life is

preserved by the compound of blood and body, for the body does not sooner die without the blood than the blood without the body. The blood must be kept alive, because while it is supporting life in the solids, it is either losing its own, or is rendered incapable of supporting that of the body. To accomplish all this, it must have motion, and that in a circle, as it is a continuance of the *same* blood which circulates, in which it is, in one point of view, supersaturated as it were with the living power; and in another it is deficient, having disposed of it during its visits to different parts of the body. Life is, in some degree, in proportion to this motion, either stronger or weaker, so that the blood may be considered in proportion to this motion, either stronger or weaker. Not only is the blood alive in itself, but carries life to every part of the body. It is not, however," says he, "*simply the motion*, but it is that which arises out of, or the *consequence* of, the *motion*. Here, then, would appear to be three parts, viz. body, blood, and motion; which latter, in his opinion, preserves the living union between the other two, or the life in both. These three make up a complete body, out of which arises a *principle of self-motion*, a motion totally spent on the machine, or which may be said to move in a circle for the support of the whole; for," says he, "the body dies without the *motion* of the blood upon it, and the blood dies without the *motion* of the body on it, pretty nearly in equal time.

"The living *principle in the blood* is similar in its effects to the living principle in the solids, owes its existence to the same matter which belongs to the other, and is the *materia vitæ diffusa,* of which every part of an animal has its portion. It is, as it were, diffused through the whole solids and fluids, making a necessary constituent part of them, and forming with them a perfect whole, giving to both a 'power of preservation, the susceptibility of impression, and from their construction reciprocal action.' This," says Hunter, "is the matter which principally composes the brain, and where there is a brain, there must be necessarily parts to connect it with the rest of the body, which are the nerves; and as the *use* of the nerves is to continue, and therefore to convey the impression or action of the one to the other; these parts of communication must necessarily be of the same matter, for any other matter would not continue the same action.

"From this it may be understood, that nothing material is conveyed from the brain by the nerves, nor, *vice versa,* from the body to the brain; for if that were exactly the case, it would not be necessary for the nerves to be of the same materials with the brain; but as we find the nerves of the same materials, it is a presumptive proof that they only continue the same action which they receive at either end.

"The blood has as much of the living principle as the solids, which keeps up harmony between

them; and as every part endowed with this principle has a sympathetic affection upon simple contact, so as to affect each other (termed, by Mr. Hunter, *contiguous* sympathy), *so the blood and the body* are capable of affecting and being affected by each other, which accounts for that reciprocal influence which each has on the other. The blood being evidently composed of the same materials with the body, being endowed with the same living powers, but, from its unsettled state, having no communication with the brain, is one of the strongest proofs of the *materia vitæ* making a constituent part of the body, *independent* of the nerves, and is similar in this respect to those inferior orders of animals who have no nerves, where every other principle of the animal is diffused through the whole.

"This opinion cannot be proved by experiment; but," says Mr. Hunter, "daily experience shews us, that the living principle in the body acts exactly upon the same principle with the brain. Every part of the body is susceptible of impression, and the vital principle of every part is thrown into action, which, if continued to the brain, produces sensation, but it may only be such as to throw the part of impression into such actions as it is capable of, according to the kind of impression; so does the brain or mind. The body loses impression by habit, so does the brain; it continues action from habit; so does the brain. The body, or parts of the body, have a recollection of former

impressions when impressed; so has the brain: but they have not spontaneous memory as the brain has, because the brain is a complete whole of itself, and therefore its actions are complete in themselves. The living principle being diffused, makes part of the body in which exists and acts for this part, probably for this part alone. The whole taken together," says Mr. Hunter, "hardly makes a whole, so as to constitute what might be called an organ; the action of which is always for some other purpose than itself; but this is not the case with the brain. The brain is a mass of this matter, not diffused through any thing for the purpose of that thing, but constituting an organ in itself, the actions of which are for other purposes, viz. receiving, by means of the nerves, the vast variety of actions in the diffused vital principle which arise from impression and habit, combining these, and distinguishing from what part they come. The brain, then," says Mr. Hunter, "depends on the body for its impressions, which is sensation; and the consequent action is that of the mind, and the body depends upon the consequence of this intelligence, or effect of this mind, called the will, to impress it to action; but such are not spent upon itself, but are for other purposes, and are called voluntary. Life," says Mr. Hunter, "is a property we do not understand, we can only see the necessary leading steps towards it; mere composition of matter does not give life, for the dead body has all the composition of matter it ever had,

it has only lost that principle (the *materia vitæ diffusa)* which is not matter."

The theory, which is opposed to that of Mr. Hunter, considers the brain and nervous system as the fountain of life; and so far from receiving its life from the blood, the nervous system is capable of instantaneously changing the crasis of the blood, or any other animal fluid; and though the nervous system cannot continue its actions for any length of time, if the action of the blood-vessels be suspended, yet the heart and blood-vessels (say the advocates for this doctrine) cannot act a single moment without the influence of the nervous fluid. "Hence," say they, "it is plain we may suppose the nervous system, and not the blood, to contain properly the life of the animal, and consequently to be the principal *vital* organ."

The irritability or contractile power of muscles is independent of nervous influence; and as to the action of the heart not continuing a single moment without the influence of the nervous fluid, the ventricles of the heart will continue to contract and dilate alternately for some minutes after it is removed from the body; and certain it is, its action is not diminished in the smallest degree by dividing the nerves which connect it with the brain, or by dividing the upper part of the spinal marrow (in the cervical portion of the vertebræ). We have frequently seen these experiments repeated in rabbits, after removing the breast-bone, so as to expose the heart to view.

The existence of the various powers in the living body (which we presume no surgeon of experience and observation will deny), enumerated in the 118th page, clearly proves, that an intelligence pervades the whole body; and the supposition that the brain and nerves are the connecting medium between it and the body, many phenomena tend to confirm. Of the nature of this superaddition to the body, as Hunter observes, we are ignorant. It is that immaterial or spiritual part, the existence of which we feel, but on which we cannot concentrate the rays of the mind. The Creator has given us the power of exploring the physical world only, and in this we have made, within the last twenty years, considerable progress; indeed, we may with truth say, that the field has only been properly entered within that time. Our ancestors dreamed about it, Boerhaave opened the door to it, the Roman religion would have closed it for ever, as too *sacred* for mortals to enter (except the infallible Pope and *saints);* the Protestant religion, strengthened by the rays of reason, has paved the road into it; and, by the chemists of the present day, it has been freely explored and deeply exploded, so that analysis and synthesis have, within a few years, made stupendous strides; and fortunate will it be for the Pope, and those monarchs whose thrones being founded on ignorance, are decided enemies to the progress of knowledge, and the advancement of the invaluable gift which distinguishes man from

brutes—reason, if it does not speedily undermine their institutions, the basis of which is bigotry and superstition.

The anatomist, who has paid any attention to the philosophy of the human body, must be satisfied that an intelligence pervades every part of it, and that this intelligence is independent of matter; that it is, in fact, as Abernethy observes, a superaddition to the body, and on the loss of which the body becomes defunct, although entire on losing it, as in cases of sudden death from lightning. On taking a view of the progress of the embryo, the existence of this intelligence is perhaps still more evident, for under its power the various parts of the body are formed. In noticing the incubation of the egg (in our 102d number of the Gazette of Health, page 982), we have described the progress of the formation of the brain, heart, muscles, bones, &c. &c. from what is usually termed the white of the egg. In the formation of the embryo, we clearly see a vital principle existing, as it were, at large, and acting of itself as a regulator of its own motions; and this power is not received from the hen during the period of hatching, because it is brought into action, and continues to advance till the fœtus is complete, under the influence of artificial heat.

Notwithstanding the high degree of susceptibility of the brain and nerves, constituting the "nervous temperament," noticed page 266, *et seq.* the unfortunate subjects generally escape serious

organic disease, and even epidemic complaints, although their general health is often greatly disturbed by atmospherical changes, and especially by the east or north-east wind*. The local complaints to which they are chiefly liable, on their general health being disordered, are those of simple irritation, as rheumatism, gout, a combination of gouty and rheumatic irritation, asthma, head-ache, and mania.

The class of remedies capable of allaying nervous irritation, or diminishing morbid susceptibility or sensibility of nerves, and for strengthening the

* The effects of changes in the wind, especially from the west or south to the east or north-east, and in the temperature and density of the atmosphere, on some nervous subjects, is very remarkable. We have frequently known asthmatics, in particular, prognosticate, by their feelings, a change in the atmosphere, a day or two before it took place, although the state of the wind, and temperature and density of the air at the time, indicated no alteration, being in the state they had been for some days. People who have lost a limb, or received a sabre wound, can foretel an unfriendly change of weather, by spasms in the muscles that had been divided or wounded; and the motion of the muscles is evident to the eye. Those involuntary actions of muscles prove that the changes interrupt the equilibrium of action between the nerves and muscular system, probably by disturbing the nerves. In an epileptic subject an unfriendly change will bring on paroxysms. We have also known nervous subjects to be so susceptible of external impressions, as to be aware of a cat (to which they had a great dislike) being in the room with them, although they had not seen it; and also a lady, who had so great an antipathy to jalap, as to be affected with purging on smelling it. The same effect by mental agitation on nervous subjects, is well known.

nervous system (termed nervines) is very extensive, embracing nearly all the articles of the materia medica: denominated narcotics, anodynes, sedatives, hypnotics, soporifics, antispasmodics, stimulants, tonics, &c. &c. Many routine physicians prescribe tonic medicines and a generous diet in cases of general nervous excitability, under the idea that it is dependant on weakness; but the robust as well as the weak are its victims; and the general and local remedies which succeed in tranquillising the nervous system in the former, will disturb or irritate it in the latter. The *irritability* of the body is a property confined to or inherent in muscles, and probably also in membranes, whilst sensibility is dependant on nerves only; and between these two properties there is evidently a peculiar harmony or reciprocity of action, so that when the equilibrium is destroyed or interrupted, the nervous system becomes preternaturally susceptible of impressions. The effect of the east and north-east wind, which is very remarkable on some nervous subjects, may perhaps be attributed to an electrical influence in interrupting the harmony between the muscular and nervous systems; for certain it is, neither the temperature, the density, nor humidity of the air, at the time, has any thing to do with its baneful operation. Some nervous subjects are even sensible of the air having shifted from a friendly to an unfriendly quarter, during the time they are warm in bed, and in a room in

which the external air could scarcely find admittance, the windows and doors being well secured against its ingress.

Hysterical and epileptic nervous invalids are very subject to a peculiar head-ache, accompanied with considerable diminution of temperature in the extremities, and frequently in the bowels, some hours, and sometimes days, before a paroxysm, which we have often heard an invalid attribute to an accumulation of nervous energy in the brain, and others to the suspension of the action of the nerves in the extremities; and in such cases, a paroxysm generally succeeds in removing the affection of the head, and restoring the limbs to their natural state of temperature and vigour, probably by re-establishing the harmony between the nervous and muscular systems*. After this convulsive action has run its course, certain it is, both the systems (nervous and muscular) become tranquil.

The treatment of the nervous habit, like the other temperaments, must be regulated by the state of the general health. If the sanguiferous system be overloaded, and the patient of a robust habit, the best nervous remedies will be aperient medicines and bleeding, with a low diet; on the contrary, if the patient be of a low, spare habit,

* Epileptic convulsions appear to be similar to those which occur on dividing the spinal marrow close to the base of the skull, which shews a connexion between the nervous and muscular systems.

and the pulse low, cordials, and a generous diet, will generally succeed in subduing the excessive susceptibility or general irritation of the nervous system. There is, however, a class of nervous medicines, which act directly in subduing nervous excitability or sensibility, termed narcotics, anodynes, soporifics, and hypnotics, as the laurel, deadly nightshade, poppy, henbane, hemlock, aconite, lettuce, &c. Some theorists, observing the system to become excited after taking any of this class of medicine, have attributed its quieting effects to a peculiar stimulating action on the nervous system, which speedily exhaust its powers; but all the medicines of this class are poisons, and the excitement which takes place is probably the alarm of that power, which we think every practitioner of experience and observation will allow to exist in the system, termed the conservative power (vis conservatrix), because when a solution of opium, or extract of deadly nightshade, be applied to an irritative ulcer, or to nerves of the skin in a state of morbid excitement, it *immediately* acts in allaying the local irritation; and when administered in a sufficient quantity to paralyse, as it were, the conservative power, it immediately acts as a sedative. In some nervous subjects, the conservative power is so much roused by an opiate, that instead of tranquillising the nervous system, or of procuring sleep, it has greatly increased the excitement, so as to prevent it; and this effect is very common when the complaint borders on mania;

and even when an opiate succeeds in quieting the system, and in inducing sleep, the patient is very apt to become most distressingly nervous after its effects have gone off. This class of medicines is therefore very rarely employed to quiet or subdue the state of the cerebral system, which constitutes the nervous temperament. There is a class of medicines which is also termed by ancient and modern authors *nervines*, for the effects of which it is difficult to account, unless, like the advertised nervous cordials of quacks, the prescriptions of some fashionable physicians, amulets, charms, and incantations, which are still employed in Catholic countries, they act through the medium of the imagination, which has great influence on the brain and nerves of superstitious and weak invalids. This class, which, with the ancients, was very numerous, has been very considerably abridged by the moderns, at least in this country; and these few are only prescribed by the blind sticklers for the monkish medicine of Warwick Lane, as the castor, musk, viper wine, &c. Pulverised human skull, the relics of saints, and dried toads (great favourites with the ancient physicians), were not abandoned till the pompous impostors were compelled, by general ridicule, to relinquish the cane and wig. Another class of nervous medicines, still in great repute in this country, operate beneficially in allaying nervous excitement, or general nervous irritation. The stomach being, as we have observed, p. 276, *et seq.* the centre of sympathy,

it is probable these mild stimulants succeed in quieting the nervous system of weakly invalids, by harmonizing, as it were, the viscera or organs of the belly, and even of the chest and pelvis, which effect is extended to the nervous and muscular systems. The principal articles of this class of medicines are ammonia, subcarbonate of ammonia, compound spirit of ammonia (spirit of sal volatile), the nitric and sulphuric ethers, valerian, the fetid gums, preparations of iron, &c.

No medicines act more efficaciously in maintaining the reciprocity of action between the muscular and the nervous systems, or the harmonious sympathy between the various organs, than those which keep up the important processes of chylification and fæcification, and prevent accumulation of fæces and gas in the alimentary canal.

The fact of constipation being a forerunner of a variety of nervous affections, as head-ache, epilepsy, hysteric fits, St. Vitus's dance, asthma, palpitation of the heart, and even indigestion and coldness of the extremities, forcibly points out the necessity of attending to the state of the bowels. For the purpose of keeping up the peristaltic motion, rhubarb is a favourite remedy with many physicians, because, as they say, it is both stomachic and aperient; but there are two great objections to it,—*viz.* its tending to increase the disposition of the intestines to constipation, and its continued use (like that of other stomachics) acting injuriously on the stomach. Such an ape-

rient medicine should be employed that will not disorder the stomach or duodenum, but promote the secretion of the colon, and diminish the determination of the blood to the brain (a common cause of general nervous disturbance), by increasing it in the lower intestines, and consequently in the extremities. To answer these purposes, the extract of aloes is certainly a valuable remedy; but as it is too bitter, too drastic, and too stimulating to the rectum for continued use, we have been in the habit of prescribing it in conjunction with alcaline extract of jalap, and the essential oil of juniper berries, in the following proportions:

> Take of extract of socotrine aloes, half a drachm; alcaline extract of jalap, 1 drachm; essential oil of juniper berries, 10 drops.—Mix well together, and divide into twenty pills. One, two, or three of these pills to be taken every day, about two hours before dinner, so as to produce one fæcal evacuation.

If this composition should not prove sufficiently strong to conquer the disposition to costiveness, half a drachm of scammony, or a scruple of gamboge, may be added to it, and the mass divided into twenty-six pills. If this should not succeed, it will be more advisable to employ a lavement of warm water, or a weak solution of the Epsom salt in thin gruel (about six drachms to a pint), than to increase the dose, or to exhibit a more powerful medicine. If the patient be subject to piles,

or irritation in the rectum, bladder, or urethra, the extract of aloes should be omitted. The addition of a diuretic to an aperient medicine, considerably promotes its efficacy in harmonizing the abdominal nerves, by bringing the kidneys and absorbent system into action. To the use of the saline aperients, as Glauber's salt, the Epsom salt, the Cheltenham salt, the Seidlitz salt, &c., there is the same objection as in cases of head-ache from plenitude. By diminishing the temperature of the stomach and bowels, they occasion a determination of blood to the head, and by disordering the stomach and bowels, increasing flatulence, &c., many nervous and other complaints, as epileptic, hysterical, and apoplectic fits, St. Vitus's dance, asthma, &c., have been brought into use.

There is a variety of indigestion common in this country, from nervousness of the viscera, &c. of the belly (probably from a disordered condition of the ganglions, brought on by severe mental distress), in which the buchu leaves have proved singularly beneficial. In this variety, although the presence of gas and acidity shews that the stomach does not perform its office, the appetite is generally good. The fæcal secretion is very irregular, and intestines easily disordered, by an aperient medicine; ripe fruit often occasioning purging. The belly is often almost suddenly distended, without any evident accumulation of gas, or fæces; and there is frequently a sensation of distension when the bowels are soft, which is generally removed by eating or

drinking. The urine varies much in colour even in the course of a day, being sometimes pale, and at others of a dark red appearance, and after standing is covered with a film, and deposits a sediment. The fæces are for the most part of a proper colour, but, when soft and frequent, emit an offensive odour. There are often flying pains in the lower extremities, particularly in the calves and the feet, on taking exercise, and also cramp, on being kept for a few hours in one position, or on riding on horseback. The patient is much disposed to drowsiness and to dreaming, and to talk or mutter during sleep, but his mind is far from being hypochondriacal, being in general so regardless of his health, as to indulge in articles of diet, although he knows they will disorder his bowels. His mind is generally very irascible, and his feelings very acute. In females this complaint is attended with the peculiar croaking, or grumbling noise in the bowels, technically termed borborygmus; and physicians, supposing it to be hysterical, generally prescribe the remedies which have obtained the reputation of allaying nervous irritation, in consequence of exciting disgust in the mind, as assafœtida, valerian, galbanum, &c.; and stimulants, as Peruvian balsam, sal volatile, ginger, &c., which afford temporary relief by exciting the nerves of the internal membrane of the alimentary canal.

In this species of indigestion, the buchu leaves have proved very beneficial, and experience has

satisfied us, that they are more efficacious in invigorating the nervous system, and allaying irritation or irritability, than any article of the *materia medica*. This remedy may be administered in cases of nervous indigestion, nervous head-ache, tremours, palsy, chronic rheumatism, nausea attendant on pregnancy, and atonic gout, combined with other articles, as the following:

Take of infusion of buchu leaves*, half a pint; tincture of columbo, four drachms.—Mix.

If the patient be subject to depression of spirits, three drachms of the compound spirit of ammonia may be added; or if acidity should prevail in the stomach, to the degree as to occasion the sensation termed heartburn, three drachms of the carbonate of soda. In cases of fluor albus, an ounce of the compound tincture of rhatany root may be substituted for the tincture of columbo.

At the Cape of Good Hope, the buchu leaves are held in great estimation as a remedy for nearly all the diseases to which the human frame is subject; and whoever considers their effects on the body when taken internally, cannot be surprised that they should prove beneficial in a great variety of diseases. An article capable of invigorating the digestive organs, keeping up the peristaltic action, increasing the secretion of the kidneys, strengthening the nervous system, and allaying morbid

* Made by infusing half an ounce of the leaves in a pint of boiling water, in a close vessel, for about three hours, during which the vessel should be agitated four or five times.

irritation and irritability, must of course be applicable to a vast number of diseases, even those of an opposite nature. It is not only a stomachic in cases of indigestion from nervousness of the stomach or of all the abdominal viscera, but the most certain diuretic that has been introduced into the practice of medicine; and the office of the kidneys being to convey impurities from the blood, a medicine capable of promoting their secretion must necessarily prove beneficial in various diseases. It is probable, to their action on the kidneys, the beneficial effects of spirit of turpentine and other diuretic medicines, in a variety of diseases, are attributable. Independent of promoting the separation of foul matter from the blood, such medicines, from the sympathy which exists between all the viscera, by bringing the kidneys into healthy action, harmonize as it were the whole. The buchu leaves, however, not only act beneficially on the kidneys, but also primarily on the stomach and nervous system; and in the diseases enumerated above, as well as irritative affections of the bladder and rectum, is the most valuable remedy that has been introduced into the practice of medicine in this country since medicine has been cultivated as a science; and it is to be hoped that its reputation will not suffer by the use of the different species which have lately been imported into this country, many of which we find on distillation to afford an acrid oil, which instead of quieting the stomach, cannot fail to disorder it.

At a late meeting of an association of medical men in Dublin, Dr. Reid read a communication from Dr. Ephraim M'Dowall, on the medicinal virtues of the buchu leaves, in which the Doctor states, that he had found an infusion of them very beneficial in a case of a young man of sedentary habits and sallow countenance, who was affected by acidity in the stomach, irregular bowels, flatulence, and frequent attacks of head-ache. He found two ounces of the infusion, taken three times a day, to occasion a striking amendment, producing a keen appetite, improving the colour of the skin, and curing the head-ache. The urinary secretion was increased by it, but no action on the bowels was observed. It succeeded in restoring the patient to health. Dr. Hulton, an eminent physician of Dublin, says, "he found the infusion very serviceable in a case of indigestion, which followed an injury of the brain and spinal marrow. It relieved nausea and flatulence, and considerably improved the appetite." He adds: "I had an opportunity of meeting with a case of gravel (of the uric acid kind) in a sedentary and dyspeptic individual, the attack coming on whenever the digestive organs were deranged, and frequently lasting with much severity for three days, attended with violent pain, shooting in the course of the ureters to the groins, anterior part of the thighs, &c.; much fever, restlessness, and irritability: any excess in drinking wine invariably produced an attack. He has been for the last three years in the habit of taking a

solution of pure potass whenever attacked, and usually continued it for a considerable time, in quantities amounting to an ounce daily. In a late paroxysm, he took it in an infusion of buchu leaves: a white sediment in the urine, in large quantity, was the result. He then omitted the potass, and took the buchu alone. He recovered rapidly, both the red and white deposit ceasing to recur." The Doctor adds: "The beneficial effects on the urinary organs in this case appeared to arise from the great improvement it first produced in the functions of the stomach." In chronic rheumatism, for which it is considered by the natives of the Cape an infallible remedy, Dr. Hulton has found it "to act with uncertainty, in some instances producing no benefit, and in others appearing to be superior to the remedies in general use."

If the stomach be in a state of debility, and the nervous system much relaxed, the symptoms of which are a sense of emptiness or want of support about the region of the stomach, (often experienced by females to a distressing degree on taking off the stays,) great depression of spirits, a sense of general languor, &c., three table-spoonsful of the following mixture may be also taken two or three times a day:

Take of the volatile aromatic tincture of bark, or compound tincture of rhatany root, one ounce; tincture of buchu leaves, one ounce; liquor of subcarbonate of ammonia, 2 drachms; camphorated mixture, 6 ounces.—Mix.

The diosma crenata, or buchu leaves, are held in great estimation as a nervous medicine at the Cape of Good Hope, and we have very frequently witnessed their salutary effects in quieting the nervous system, particularly of debilitated elderly people.*

The following compositions are also excellent nervous stomachic medicines:

No. 1.

Take of the volatile aromatic tincture of bark, three drachms; tincture of buchu leaves, one ounce; camphorated julep, six ounces.—Mix. Three table-spoonsful to be taken twice a day.

If the patient be subject to gouty irritation, or if the urine deposit a red sediment, two or three drachms of the solution of potass may be added to this mixture; or if he be affected with rheumatic pains, two or three drachms of the volatile tincture of colchicum seeds or three drachms of the volatile tincture of lupulin.

* The Rev. Dr. W., about eighty years of age, a few weeks since, favoured us with a visit, for the purpose of thanking us for the information he had obtained of this article, from the Gazette of Health, as a remedy for nervous irritation and debility. He stated that it had succeeded with him, in quieting and strengthening his nervous system, and in promoting digestion, after all the class of nervous medicines, prescribed by eminent practitioners, had failed.

No. 2.

Take of the volatile aromatic tincture of bark, six drachms; compound spirit of sulphuric ether, three drachms; infusion of buchu leaves, seven ounces.—Mix. Two table-spoonsful to be taken three times a day.

No. 3.

Take of alcaline liquor of iron, three drachms; volatile tincture of cascarilla, four drachms; infusion of buchu leaves, seven ounces.—Mix. Three table-spoonsful to be taken three times a day.

This is a very excellent nervous tonic medicine, when the legs are edematous, the circulation languid, and the complexion pale, or when there exists a disposition to dropsy, or when the patient is affected with a peculiar local debility.

No. 4.

Take of the volatile aromatic tincture of bark, one ounce; compound tincture of rhatany root, half an ounce; compound spirit of sulphuric ether, three drachms; camphorated mixture, six ounces.—Mix. Three table-spoonsful to be taken three times a day.

This is a valuable composition for general nervous debility or irritation, particularly when attended with irritability of the intestinal canal or disposition to diarrhœa, or with an increased secretion of urine.

The effects of the blue pill, and other mild preparations of mercury, on nervous subjects, are often very opposite; on some, four grains of the blue pill, or one of calomel, producing a most happy quieting effect on the stomach and whole nervous system; and on others, a smaller dose disordering the stomach, intestines, and even the brain itself. In most cases of indigestion of long standing in nervous subjects, some degree of obstruction, or organic affection of the coats of the stomach, of the substance of the liver, the pancreas, &c. generally exists, which often renders the introduction of a little mercury into the system necessary; for as long as the obstruction continues, the beneficial effects of a stomachic or a nervine medicine will be temporary. It should be administered with great caution, and its effects attentively watched; for what is termed the mercurial fever, or even irritation in the gums and salivary glands, never fails to disturb the brain and nervous system, and instances of insanity, from its incautious use, we suspect are very numerous.

If there be no secretion from the nostrils, and especially if the sense of hearing or vision be weakened, either from local debility of nerves or fulness of blood-vessels of the head from languid circulation, a little of the compound asarabacca snuff may be sniffed up the nostrils about once a day. This composition not only relieves the brain by its action on the nerves, and by increasing the secretion of mucus from the inner membrane of

the nostrils, but by occasioning sneezing, tends to remove congestion of the blood-vessels of the brain, by equalizing the general circulation.*

In cases of nervous head-ache, the valerian root combined with the Peruvian bark, camphor, and sal volatile, was much extolled by the late Dr. Cullen, and was frequently prescribed by the late Dr. Cheston, of Gloucester, and Dr. Blount, of Hereford, in the following proportions:

> Take of valerian root, recently powdered, Peruvian bark, ditto, of each two drachms; spirit of sal volatile, three drachms; camphorated julep, seven ounces.—Mix. Three table-spoonsful to be taken three or four times a day.

If this mixture should oppress the stomach, the following may be substituted for it:

> Take of Peruvian bark, bruised, valerian root, ditto, of each half an ounce.—Mix and infuse in three-quarters of a pint of barley water (in a closed vessel) for three hours. Then strain off the liquor through fine gauze, and add—

* The increase of temperature in the extremities and in the skin of the trunk, which immediately follows sneezing, although previously as low as 56 Fahr., shews that it occasions a determination of blood to the surface and extremities of the body, and is consequently capable of relieving internal parts affected with local congestion. It should be used when the stomach is most empty.

Volatile tincture of valerian, three drachms; compound spirit of lavender, four drachms. Three table-spoonsful to be taken three times a day.

Some practitioners of eminence highly extol a combination of iron, valerian, ammonia, and camphor, as a remedy for nervous head-ache, especially when the circulation in the extremities is languid, or the skin pale, as the following:

Take of valerian root, recently powdered, three drachms; alcaline liquor of iron, four drachms; compound spirit of ammonia, three drachms; camphorated mixture, seven ounces.—Mix. Three table-spoonsful to be taken three times a day. Or,

Take of valerian root, recently powdered, three drachms; tincture of muriate of iron, one drachm and a half; compound spirit of sulphuric ether, three drachms; camphorated mixture, seven ounces.—Mix. Three table-spoonsful to be taken three or four times a day.

The compound asarabacca snuff, as recommended page 309, and the aperient pills (page 300), are very proper in nervous head-ache. For this variety of head-ache, and indeed for all nervous affections, local or general, it is of great importance to keep the feet warm by wearing flannel socks or worsted stockings, and thick shoes, and to keep

the head cool. Cold water applied to the head for three or four minutes, either by means of a napkin every morning, or whenever the temperature of the head runs higher than the natural standard, or when there is an increased afflux of blood to the brain, is a powerful auxiliary to medicine, in strengthening and quieting the nervous system.

Nervous head-ache is sometimes attended with symptoms so strongly indicative of compression of brain from over-distension of blood-vessels, that it is often a very nice point to determine, whether the complaint be purely nervous, or whether the brain is not disordered by a plethoric state of its blood-vessels. Giddiness, ringing in the ears, imperfect vision, confusion of mind, a sense of heaviness, nausea, and vomiting, are not only the consequences of compression of brain from over-distension of blood-vessels, but also of depletion. They precede the apoplectic fit from plethora, and also the fainting fit from the loss of blood. In nervous head-ache, the pupils are generally contracted, and in the head-ache from plethora, they are generally much dilated, often one more than the other; but in cases of *nervous* head-ache, when the cerebral system is in a state of *debility*, the pupils are also dilated. The pulse, in the nervous head-ache, is languid and small, and the extremities cold; but in the plethoric head-ache it is generally full, and the extremities warm: if, however, the brain be much compressed by the over-distended vessels, the pulse will be languid, and the skin

cool. The nervous head-ache may be distinguished from the plethoric, by placing the head or body in a position which favours the afflux of blood to the brain, or checks its return from the brain. If in an horizontal position, or during stooping, or looking upwards or backwards when in an erect position, the giddiness or pulsation in the head be increased, the inference is, the blood-vessels of the head are overloaded, and the brain disturbed by compression or increased vascular action; but if they produce no aggravation of the leading symptoms, and especially if they afford relief, there can be no doubt of the complaint being nervous, and that the state of the blood-vessels has little to do with it. Some practitioners have asserted, that the nervous head-ache may be distinguished from the plethoric by a stimulus, as brandy or wine applied to the stomach; but when the plethoric state is merely local, that is, not dependant on general plethora, a cordial or stimulant applied to the stomach, by increasing the circulation in the bowels, will produce a diversion in favour of the overloaded brain. A bandage applied round the head (over the temples) affords great relief in the nervous head-ache, but in the plethoric produces confusion. Nervous subjects, especially those who are of a gouty habit, are very liable to attacks of cough, termed nervous cough, on unfavourable changes in the atmosphere, from irritation at the top of the windpipe, or in the part termed larynx; and from the continued tickling sensation at the upper part of the wind-

pipe, it is often very distressing. The irritation soon gives way to the following mixture:

> Take of compound spirit of sulphuric ether, three drachms; tincture of colchicum seeds, two drachms; camphorated mixture, four ounces.—Mix. One or two table-spoonsful to be taken three times a day.

The inhalation of the vapour of ether, or of tar, also affords immediate relief.*

The observations we have made on the stomach, as the centre of sympathy (page 279), point out the necessity of keeping that organ in a quiet state, in the nervous temperament. With this

* Internal irritation, and especially when attended with pain or spasms, is generally considered by routine physicians as certain indications of the existence of inflammation. We have heard a judge, in summing up the evidence brought forward in a trial for mal-practice, emphatically observe, "there was evidently pain, and pain cannot take place without inflammation"!! To constitute inflammation, preternatural distension of blood-vessels and increased temperature of the part are necessary; but irritation and very painful spasms frequently occur in nervous subjects without any such attendants: indeed the part is often in an opposite state, and the irritation and pain are relieved by increasing the circulation and temperature in it, either by friction or warm fomentation. In nervous subjects, a cough occasioned by inflammatory action, either in the inner membrane of the windpipe or in the lungs, will often continue after the cause has been entirely removed, and when indeed the membrane and lungs are in an opposite state; in which case nervous cordials and a generous diet generally succeed in quieting the disturbed nerves:—this is often the case in hooping-cough of some weeks standing.

view, nervous subjects should be very particular in the choice of articles of diet. The peculiarities of the nervous habit, as we have already observed, are so very opposite, that the best advice a medical man can give to a nervous invalid, is, to avoid those articles which evidently disagree with the stomach, and not to oppress or over-stimulate it with too great a quantity of those which do agree. So far as a general rule can be laid down, we should say, avoid all green vegetables in a raw state, (as celery, water-cresses, lettuce, onions, cucumbers, radishes, melons, &c.) pickles, cheese, pastry, nuts, walnuts, sweetmeats, soups, broths, new potatoes, sweet ale, green tea, coffee, and all burnt articles, (as English coffee, crust of bread, and outside of roasted meat). The best article for breakfast is the sassafras cocoa with sugar and milk, brown bread (not new), or sea biscuits with a little butter. The aromatic property of this cocoa promotes digestion and prevents the accumulation of flatus in the stomach and intestines, a property which neither tea, common cocoa, chocolate, nor coffee possesses. For dinner, the interior of roasted or boiled mutton, beef, boiled or roasted fowl, lamb, partridge, hare, &c. with mashed potatoes, asparagus, green peas or cabbage, with pepper; and finish with an anchovy instead of cheese. With respect to beverage, he should take such which he finds to promote digestion; either diluted spirit or well-fermented malt liquor. After dinner he may encourage a nap in the chair for a few minutes, provided he be

drowsy and finds himself refreshed by it. For supper he may take a bason of broth, or light bread pudding; and if malt liquor be necessary to quiet the system or dispose it to sleep, he may take with it an anchovy with some bread.

Generally speaking, three meals a day are sufficient for the nourishment or support of the body; but, in nervous subjects, there is often such peculiarities of stomachs, that it is common for local nervous excitement to take place either in the head, heart, or bowels, when the stomach is not engaged, or when it is distended with gas. The determination of blood to the stomach, and increased energy of its nerves, which take place during digestion, often relieve violent nervous head-ache and other local nervous affections; and for this purpose, it is common for nervous subjects to have recourse to frequent meals; and when they evidently quiet the system, allay local excessive action, and do not fatigue or oppress the stomach, they should be allowed. With respect to the frequency, quantity, and even quality of meals, a nervous patient should be as competent to judge as the most experienced physician.

A little exercise is necessary to keep up the functions of the viscera, and such should be preferred which pleasantly engages the mind, as travelling in countries which afford a variety of scenery and states of society; avoiding damp or marshy countries,—the vapours of which are very apt to disturb the nervous system, particularly of

gouty, rheumatic and asthmatic subjects. Sometimes local irritation runs so high as to render the use of an article of the class of remedies termed narcotics (noticed page 295), necessary. This class, as we have already observed, is very numerous, and, like the class of purgatives, some of them appear to act more effectually in allaying irritation in one part of the body than in another. For instance, the extracts of hedge-hyssop, of the garden lettuce, and of hemlock, and the Prussic acid, act more efficaciously in allaying irritation in the inner membrane of the windpipe and lungs, than any other anodyne—the tincture of foxglove *diminishes* the action of the heart, when morbidly excited, and *increases* that of the absorbent vessels —the colchicum allays irritation of membranes of the joints (rheumatic and gouty)—the aconite and henbane reduce excitement or irritation within the scull, and the deadly nightshade seems to act on the nerves of the face, and the buchu allays morbid irritation in the bladder and rectum. In some cases of local irritation, as of the stomach and pharynx, the topical application of a stimulant capable of blistering the skin of the surface of the body, as the capsicum, will allay it; and others, which sympathetically stimulate the brain on being taken into the stomach, as spirit of turpentine and gin, will allay irritation in the kidneys and bladder. A stimulating electuary, termed Ward's Paste, (the basis of which is black pepper,) taken into the stomach, has been found to allay the

irritation of piles; and an infusion of cayenne pepper is a popular gargle in Italy for inflammation of the tonsils. The local action of the different anodynes, and indeed every other class of remedies, although much influenced by peculiarity of constitution, is an important and highly interesting part of practical medicine.

CHAP. XXIV.

COSTIVENESS IN THE ERYSIPELATOUS TEMPERAMENT.

Every practitioner of experience and observation, we think, will admit that there is such a state of body as may be termed *erysipelatous;* or system, from some condition of the blood, or nerves, so predisposed to erysipelatous inflammation, that the slightest injury or irritation will produce considerable degree of erysipelatous or erythematous inflammation—as the puncture of a leech, the scratch of a pin—and in which a blister, slight excoriation, or even a stimulating plaster, will excite considerable and extensive inflammation. This state of system is attributed, by some writers, to a preternatural saline state of the blood; and, from the circumstances of the serum of the blood, the urine, the tears, the discharge from the vesicles, and even the mucus from the internal membrane of the windpipe, being highly charged with saline particles, this theory is probably correct.*

* Although the fluids appear to be preternaturally impregnated with *saline* particles, yet the *saline* waters in general prove very beneficial in reducing the inflammatory action, and in correcting the habit. We have met with many cases of

In such habits, it is of great consequence to guard against costiveness, in order to prevent local mischief; as affections of the lungs, brain, skin, and intestines, to which such subjects are very liable.

The tar, or pitch, both of which are certainly powerful correctors of the erysipelatous habit, may be given in conjunction with an aperient, as the following composition :

Take of the purified pitch (Stockholm), half a drachm; alcaline extract of jalap, 1 drachm. Mix well together, and divide into twenty pills; one, two, or three of which may be taken every night or morning, with a teacupful of the decoction of marshmallow-root, so as to produce one copious alvine evacuation daily.

The subcarbonate of ammonia, with the Peruvian bark, in the following proportions, has also manifested something like a specific corrector of this habit:

Take of subcarbonate of ammonia, from 2 to 4 scruples; infusion of Peruvian bark, 8 ounces.—Mix. The dose of this mixture is from two to three table-spoonsful three times a day.

acute and chronic erysipelatous inflammation, in which the sea-water and the Leamington saline waters have proved highly beneficial, although such remedies are contra-indicated by the results of a chemical examination of the fluids of the body.

During the use of this mixture, it is a common practice to administer four grains of blue pill with two grains of the precipitated sulphuret of antimony every night at bed-time, for about one week. The bowels should be kept in a regular state by the pills of alcaline extract of jalap and pitch*.

The late Thomas Cam, Esq. of Hereford, was partial to a solution of the oxymuriate of mercury in antimonial wine, in cases of chronic erysipelatous affections, or for correcting the erysipelatous habit, in the following proportions:

> Take of oxymuriate of mercury, 6 grains; antimonial wine, 1 ounce.—Mix. The dose of this composition is from fifteen to twenty drops, in a wine-glassful of the decoction of the inner rind of elm bark, or a decoction of marshmallow-root.

When the edges of the eyelids are inflamed (a complaint to which erysipelatous subjects are very liable), a little of the following ointment, introduced into the inner corners of the eyes, and rubbed over the eye-lashes at bed-time, generally succeeds in curing it in a few days.

> Take of spermaceti ointment, half an ounce; prepared calomel, half a drachm; flowers of zinc, 5 grains.—Mix.

* Pitch, and the terebinthinate medicines taken internally, appear to be powerful correctors of the erysipelatous habit, or what is vulgarly termed land-scurvy. The tar-water is a very old remedy for erysipelas, but the pitch is more efficacious; one pill of it being equal to a gallon of the water.

An erysipelatous affection of the lower part of the rectum, and of the external skin, frequently mistaken for piles, we have noticed in page 121.

On the bad effects of the scurvy-grass, water-cress, and other supposed antiscorbutic vegetables, so generally employed in France and England, and on the decoction of the sarsaparilla, we have made some observations in the chapter on Indigestion. Mucilaginous articles evidently allaying the irritation attendant on erysipelatous inflammation, the best diet drink in such cases is the decoction of the marshmallow-root.

CHAP. XXV.

COSTIVENESS IN THE MELANCHOLIC TEMPERAMENT.

SOME practitioners make little or no distinction between melancholy and hypochondriasis; and with respect to the state of *mind* as approximating mania, there is a very slight shade of difference; but in a practical point of view, there is a very wide difference; melancholy being independent of any disorder of the stomach, while hypochondriasis is often dependant, and always more or less connected with an unhealthy state of the digestive organs, or of the ganglions of the abdomen.

Melancholy is distinguished from mania by being confined to a few objects or trains of ideas, whereas in mania it is general. Some ancient writers employed the term melancholy to signify insanity accompanied with gloom or despondency, without any attention to its being partial or general.

Dr. Good has noticed four varieties of melancholy, viz. gloom, restlessness, mischievousness, and self-complacency, all which are excited by the

same causes, and owe their difference to peculiarity or even the natural dispositions of the mind. Fracastorio notices varieties from prevailing temperament. The *phlegmatic,* says he, are heavy; the *sanguineous,* or *plethoric,* lively, cheerful, merry, but not witty; the *choleric,* are in rapid and perpetual motion, impatient on dwelling on any subject. An acuteness of wit belongs to most of the varieties, but not to all; and hence Diocles, in opposing Galen for holding, after Hippocrates, that gloom and terror are distinguishing signs of melancholy, observes: "Upon serious consideration, I find some patients have nothing of these qualities, and others that exhibit every diversity of feeling; for some are sad without being timid, others timid without being sad; some are neither, and some both. Spurzheim, the phrenologist, has noticed another curious variety, to shew that the mental faculties are double, and that each side of the brain contains a distinct set. "Tiedman," says he, "relates the example of one Moser, who was insane on one side of the brain, and who observed his insanity with the other."!!! Gall (Spurzheim's partner) states, that he attended a minister who had a similar disease for three years, and that he heard constantly for that period, on his left side, reproaches, &c., and turned his head to that side in order to look at the persons. With his *right* side, says the Doctor, he commonly judged of the madness of his *left* side. Long after his left side was cured, if he happened to be angry, or if he

had drank more than he was accustomed to do, he observed in his left side a tendency to his former alienation. According to this theory, if a man exercises only one side of his brain, he will probably in some respect act foolishly; and on reflection, *i. e.* bringing both sides into consultation, or when the side which generally acts calls in the aid of the other side, he will discover his error. If this be really a fact, which we are much disposed to doubt, it satisfactorily accounts for the ideas some religiously insane people have had of being visited by a spirit, and of receiving communications from the Almighty. By this theory we may also account for dreams, in which the most ridiculous nonsense does not appear inconsistent or irrational, by the disordered side of the brain remaining awake whilst the healthy side sleeps!!

The ancients considered all the varieties of melancholy to be more or less dependant on the prevalence of *black* bile in the intestinal canal; and they accordingly prescribed purgative medicines, which they supposed to possess some peculiar property of carrying it off, and of correcting the biliary secretion. Their favourite remedy, for these purposes, was the black hellebore root, the powder of which they administered in the dose of twenty to thirty grains, once or twice a week. It is worthy of notice, that this article, which, in some constitutions, acts powerfully as a purgative, and in others scarcely produces any effect, always

occasions very dark motions, which are more or less followed in nervous subjects by serenity of mind. Dr. Meed spoke very highly of it as a tranquillising purgative, and a deobstruent; but Cullen, having observed no good effect from it either in melancholy or any other disease, condemned it as a drastic medicine, and as possessing no advantage over aloes or any other purgative; in consequence of which, it has nearly fallen into disuse.

It is worthy of remark, that in most disorders or diseases of the brain of increased excitement, the fæces are more or less dark and offensive; and in cases of melancholy and mania, they are often nearly black; and in many remarkable cases of copious evacuations of black offensive fæces, dissection has proved that the colour was not produced by the bile; it being confined to the fæces in the colon, the contents of the upper intestines being of a natural colour, and the bile in the gall bladder and duodenum perfectly healthy. We have met with melancholic and very nervous subjects, who have stated, that they were greatly relieved by dark motions, and particularly when accompanied with copious discharge of hydrogen gas. The dark coloured fæces, and the hydrogen gas, were probably secretions of the glands of the inner membrane of the colon, which relieved the brain and nervous system. As different purgative medicines operate on different parts of the intestinal canal, and as they all produce fæces of different

appearances, is it unreasonable to suppose that some may produce such a secretion of fæcal matter from the inner membrane of the colon, as may act more beneficially in affections of the brain and general nervous system, or in diseases of the mind, than others? We are, from the testimonies of the ancients, and from the results of a few trials in cases of melancholy, inclined to entertain a high opinion of the black hellebore root, as a cerebral and visceral purgative, in cases of melancholy, and in many nervous affections.

The extract of the recent root, made by evaporating a saturated tincture, with an alcali in a water bather, as directed for the alcaline extract of jalap, is certainly the best preparation of it. The dose is from one to fifteen grains, made into pills with a little ginger powder, or it may be mixed with the alcaline extract of jalap and ginger powder, in the following proportions:

> Take of alcaline extract of black hellebore root, alcaline extract of jalap, of each half a drachm; ginger powder, 10 grains.—Mix well together, and divide into fifteen pills; three of which may be taken once or twice a week.

If the bowels should not be sufficiently relieved during the intermediate days, five or eight grains of the alcaline extract of jalap (in two pills) may be taken every night.

The treatment recommended for regulating the

bowels in the nervous temperament, page 299, and the observations on the benefit of amusing exercise, application of cold water to the head, the use of flannel socks, moderate diet, &c., are applicable to constipation in a melancholic subject.

RETENTION OF FÆCES FROM MECHANICAL CAUSES.

CHAP. XXVI.

RETENTION FROM INTROSUSCEPTION.

The following case of this formidable disease lately occurred in Brighton. A. B., a robust man, about 36 years of age, after taking a few oysters for supper, was seized with acute pain in the bowels, for which he took, the following morning, about half an ounce of tincture of rhubarb. The remedy not operating on the intestines, he took, in the afternoon, an ounce of castor oil; which, not producing any aperient effect, he repeated the following morning. Violent vomiting coming on in the evening, with considerable aggravation of the pain in the bowels, attended with head-ache and slight fever, we were requested to see him. On examining the abdomen, we found it much distended, and so very tender, that very slight pressure, especially over the valve of the colon, produced acute pain. The pulse being full, and the

vessels of the head evidently much distended, we ordered 16 ounces of blood to be taken from a vein of the arm; three pills, composed of the cathartic extract, calomel, and extract of henbane, to be taken; a lavement of decoction of aloes, extract of henbane, and Epsom salt, to be exhibited, and the bowels to be well fomented. The next morning we found him much more easy. The lavement had escaped without fæces. The pulse being full, and the bowels tense and painful on pressure, we ordered twelve ounces of blood to be abstracted, and two ounces of quicksilver to be given immediately; and the lavement to be repeated. In the afternoon we found him in great pain, with great confusion of the head, which he attributed to frequent vomiting and absence of sleep. The pulse had considerably fallen and intermitted, and his countenance was much dejected.

The case becoming alarming, we ordered him to be put into a warm sea-water bath; and, for the purpose of regulating the heat, we accompanied him to it. After being in the bath, at the temperature of 94 (Fahr.), fifteen minutes, he said the pain in the bowels had considerably decreased. The temperature was then increased to 98, which, he said, seemed to do him more service. We then threw up the rectum, &c. about two quarts of the water of the bath, which seemed to increase the pain, and also to excite vomiting. He then took his station again in the bath, with the water raised to 102 degrees. He was now again nearly free from pain.

After remaining fifteen minutes longer in the bath, without being sensible of any quantity of the injected water having escaped, we threw up two quarts more of the water of the bath, at the temperature of 102. This was followed by vomiting; and, in about five minutes after taking his situation in the bath, a considerable quantity of air, and bloody slime and fæces, escaped downward, which was soon followed by vomiting of salt water and bloody slime, with liquid fæces, similar to that which escaped from the rectum. The man's spirits now rose, and his countenance became more animated; and, on getting out of the bath, he observed, "I am, thank God, in heaven." He was then conveyed to his bed, and an anodyne draught administered. On visiting him three hours after he had taken the draught, he complained of great pain in the bowels, which was increased by slight pressure; and the pulse being quick, we ordered a gentle aperient draught, with the extract of henbane, and a large blister to be applied over the abdomen. The next day we found him free from pain; the blister had risen, and the aperient draught had operated. After this time, he rapidly gained strength; and in two days he was able to follow his occupation. The fortunate termination of this case, clearly shews the superior advantage of administering a copious lavement, when the body is under the influence of the warm bath; and the continuance of the body in warm water for upwards of an hour. The

vomiting of salt water, &c. proves that a liquid may be forced beyond the valve of the colon, by even a simple instrument; for that we employed was a large bullock's bladder, with the common pipe. The lavement syringe, invented by Mr. Reid, is the best instrument for forcing a fluid up the intestinal canal. We have been told by some respectable surgeons, that they have by means of it injected warm water into the rectum, till it was vomited.

CHAP. XXVII.

RETENTION OF FÆCES FROM PRESSURE OF AN IMPREGNATED WOMB.

The pressure of the uterus on the colon and upper part of the rectum, after the seventh month of pregnancy, is a common cause of the retention of fæces, which, in plethoric, asthmatic, and consumptive subjects, and in cases of diseased rectum, kidneys, or bladder, generally produces considerable distress.

For the purpose of removing the accumulated fæces, a lavement of a weak solution of Epsom or common salt (an ounce in a quart of water), administered once a day, generally succeeds. The patient should lie on the right side when it is exhibited, that the descending colon may be as little compressed as possible by the impregnated uterus. It should be thrown up by means of a syringe, with a blunt conical end, to pass only the verge of the anus, much serious mischief having been done to the rectum by a long pipe during the last stage of pregnancy. It being of importance that the fæces be not hard, or that hard

lumps, termed scybalæ, should not form in the colon, one or two of the following pills may be taken every or every other day:

Take of the alcaline extract of jalap, one drachm; alcaline extract of rhubarb, half a drachm; ginger powder, twelve grains.—Mix, and divide into twenty-four pills.

If the digestive organs do not perform their office, half a drachm of the extract of fumitory, or of cascarilla, may be added to the above prescription, and the mass divided into thirty pills, of which two or three may be taken once or twice a day, so as to produce one motion daily, or to prevent hard fæces. These pills will often succeed so as to render the use of a lavement unnecessary. If piles be present, the ointment recommended page 121, may be applied every night and morning, or after every motion.

CHAP. XXVIII.

RETENTION OF FÆCES FROM STRICTURE OR SCIRRHO-CONTRACTED RECTUM.

In cases of contractions of the rectum or colon from structural disease, and especially when ulceration has taken place, a collection of hard fæces in the colon produces a most distressing sense of distension, and the passing of them the most excruciating pain*. Although the cause of the retention is mechanical, and admits of local treatment by injections, it is of great consequence to prevent the formation of hard fæces in the colon, or the lumps termed scybalæ, as it is often difficult to inject the colon so as to soften them. With this view we have found the following composition not only to produce soft fæces, but considerably to reduce the local irritation:

Take of alcaline extract of jalap, one drachm; extract of buchu leaves, half a drachm.—Mix, and divide into twenty pills: two to be taken once or twice a day.

* A female, with a scirrho-contracted rectum in an ulcerated state, the mother of seven children, has frequently observed to us, that the passing of hard fæces was more intolerable than the strongest labour-pains she ever experienced.

In this case lavemens, particularly anodyne ones, are unquestionably important remedies when cautiously exhibited. We have found warm water with linseed oil and laudanum to act most beneficially; but the parts are often so exquisitely sensible as not to admit either of the introduction of a clyster-pipe, even when covered with elastic gum, or the *pressure* of the syringe with a conical end, recommended for costiveness attendant on pregnancy. The saline aperient salts, and the mineral saline purgative waters of Cheltenham, Leamington, &c. &c., we have uniformly observed to increase the sufferings of the patient, and particularly to aggravate the irritation at the neck of the bladder, which, more or less, we have always found to accompany organic diseases of the rectum and colon.

As an internal medicine, two large tea-spoonsful of the tincture of buchu leaves, taken two or three times a day, in a large wine-glassful of the decoction of marshmallow root, has proved very beneficial in allaying the exquisite sensibility of the nerves of the rectum, bladder, &c.*

* For topical and constitutional treatment of this formidable disease, we have given explicit directions in a small work on Strictures of the Urethra, Rectum, &c., entitled "A Practical Treatise on Strictures of the Urethra and Rectum, Morbid Irritability of the Bladder, Tabes Dorsalis, &c. &c. with Instructions for the Use of the Buchu Leaves."

APPENDIX.

OF LAVEMENS OR CLYSTERS.

In no country of Europe is the class of remedies termed lavemens or clysters so seldom used as in England. In France, the lavement apparatus and bidet are deemed as necessary appendages to the toilet, as the tooth-brush, bottle of odoriferous essence, or water jug, it being common in that country for males and females to take a clyster every forenoon. It has been said, and perhaps with truth, that the females of France are more healthy than those of Great Britain; which is attributed by a late writer to their keeping "the intestinal canal in a regular state, by the occasional and almost daily exhibition of a domestic clyster." The difference of the climate, and the small quantity of vinous and spirituous liquors the French are in the habit of taking, and the frivolity of their minds, may account in a great measure for their being more free from disease than the English. That many formidable maladies may be fairly imputed to constipation, we think no practitioner of experience will deny. For our own part, we are satisfied that if the lower portion of the alimentary canal does its

duty, the upper portions, as stomach and duodenum, will do theirs. Experience has convinced us of the fact, that if an invalid from indigestion will take care of the colon and rectum, so as not to allow them to be overloaded, and keep up the secretion of the colon, the stomach, duodenum, and liver will take care of themselves. On taking the office of the colon, in the animal economy, into consideration, the class of remedies termed clysters is a most important one. We have said so much in favour of the different lavemens, in the preceding Chapters, as remedies for a variety of costiveness, that it is unnecessary to expatiate on their peculiar advantages in the treatment of a variety of diseases, in this place. We shall, therefore, conclude this work with some remarks on them by a French Physician of eminence, who has been in the habit of ordering them very extensively, and of taking one daily for upwards of thirty years; and with copies of the most approved receipts for making those which are employed by the most experienced physicians and surgeons of this country and of France, &c.

" The term clyster or lavement signifies all medicaments introduced in a liquid form into the large intestine (rectum). It is generally administered in a tepid state. When it is intended to operate immediately on the internal surface of the intestine, so as to allay inflammatory action or irritation, it is given cold.

" In administering a clyster, attention should be paid to the quantity; for if too abundant, by occasioning overdistension of the rectum, it is apt to excite an unnecessary degree of distension, and consequently to produce too much irritation in the internal membrane of the intestine which receives it. In affections where the intestines are in a state of irritation, a stimulating clyster might produce much mischief. It must not be forgotten that a *simple*

clyster ought to precede a stimulating one. By such practice the large intestines are disencumbered, and room left for the medicaments to operate on the upper portion of the intestinal canal. Clysters act on the interior of the rectum and colon, and their influence is afterwards extended to the small intestines.

"The advantage principally gained by this class of remedies is the evacuation of the fæcal matter contained in the large intestines. Simple water is sufficient to produce this effect; and it is generally this liquid which is used when we would only empty the colon and rectum. The object of the medicinal clyster is a subsequent operation which requires great attention. The active principles of the articles which are contained in it, provoke in the animal economy a series of effects from whence are derived all the advantages which are obtained from this clyster.

"It is easy, by means of medicinal clysters, to provoke in the living system very diversified modifications. They promote the functions of the various organs, fortify the viscera, augment their vigour, and produce in them other beneficial effects, according to the tonic or exciting substances they contain, and according to their emollient or purgative virtue.

"Clysters are, in fact, purgative, emetic, tonic, exciting, diffusible, narcotic, laxative, and emollient. The first act briskly. They excite the mucous membrane lining the large intestines. They are particularly favourable to females, who, after having ceased suckling their children, wish to prevent a further secretion of milk. These clysters are sometimes prejudicial when considerable intestinal irritation exists, by occasioning inflammation of the bowels. The effects of the *emetic* clysters bear the greatest analogy to those of the pur-

gative. The *tonic* clysters prepared with the vegetable substances, which contain the bitter and astringent principles, make upon the large intestines a more durable and deep impression than when taken into the stomach, being propagated over the whole alimentary canal, so as to strengthen the digestive organs. This action of the medicinal agents is transmitted to the parts situated near the large intestines, and often speedily re-establishes the energy they had lost. The *exciting* clysters (composed of vegetable substances which contain sharp, aromatic, volatile articles, which ought not to be suffered to evaporate) act first upon the internal surface of the large intestines, and by invigorating the nerves of the viscera, they promote their functions. Their action renders them useful in chronic affections attended with general weakness, paleness of the skin, relaxation of the muscular system, in the flatulent colic dependant on relaxation or debility of the alimentary canal. The *diffusible* clysters, containing wine, spirit, &c., produce at first a kind of excitation in the intestinal canal; the activity of their principles is diffused over the system with an extreme promptitude, so as even to invigorate the brain. But when they are too much charged with these principles, the blood-vessels of the brain become over-distended, and by compressing that important organ, occasion general debility, and produce, in fact, all the symptoms of intoxication. In colic occasioned by accumulation of gas, a diffusible clyster frequently relieves the patient instantaneously, by giving to the intestinal canal a shock which immediately establishes its peristaltic action. They combat likewise with success the different accidents that chronic affections produce. We have prescribed in analogous cases camphorated clysters, which have had a wonderful effect.

" *Emollient* clysters are composed of gelatinous and oily articles, as the decoction of the roots and leaves of the marshmallow, linseed, barley, starch, calves' feet and flesh, hartshorn shavings, &c. In the exercise of our daily functions, these clysters do not create sudden changes worth noticing, but they ensure in all the organs a perfect abatement, which tends to lessen their activity, and which, in diseases caused by an excess of vital force, by a too great agitation of the blood, brings on a very remarkable calm. Very useful assistance is to be met with in all chronic affections, in a dry, irritable constitution; they agree with people who are subject to spasmodic affections within the abdomen; it is to them we must have recourse to combat active constipation, that is to say, that which retains an excess of heat or inflammatory excitement in the large intestines.

" We chiefly adopt the form of clyster termed *emollient.* It is eminently efficacious in promoting the operation of a purgative medicine, to prevent griping pain, and to render irritating matter which remains to be evacuated, inoffensive. Its laxative power moderates the intensity of diseased secretions, and concurs in leading to a favourable issue. Sydenham and the most eminent practitioners prescribed the use of it in similar circumstances.

" In the case of a continued constipation, it is an error to believe that a clyster produces the desired evacuation; for this remedy not attacking the seat of the malady, becomes useless and even dangerous, if too often renewed: thus it is better to abandon it in this case, and return again to purgation.

" We have very frequently observed clysters according to our prescription, that is to say, a simple decoction of linseed or bran with the addition of 8 or 10 of Dr.

Franck's Tonic Purgative Pills dissolved in it,* to effect extraordinary cures in an infinity of diseases. This method of using the clyster should be adopted when the tonic purgative pills have not sufficiently evacuated the bowels. If, on the contrary, the evacuations are abundant, the emollient clyster may be employed with great advantage to dilute acrimonious matters, and protect the internal surface of the intestine from its stimulating action."

No. 1.—*Simple Clyster.*

Take a pint of cheese-whey or butter-milk;
Or, (A)
About 2 tea-spoonsful of soft soap, dissolved in a pint of soft water.

These are administered lukewarm, to soften and remove hard fæces lodged in the rectum or colon.

No. 2.—*Laxative Clyster.*

Take of cheese-whey, butter-milk, or decoction of marshmallow leaves (fresh), 12 ounces;
Epsom salt, from 6 drachms to 2 ounces;
or,
Castor oil, 1 ounce.—Mix.

This composition is chiefly employed to obviate costiveness, or to hasten the operation of an opening medicine taken into the stomach.

No. 3.—*Purgative Clyster.*

Take of infusion of senna, from 6 to 12 ounces;
Epsom salt, from 6 drachms to 2 ounces.—Mix.

* These pills are noticed in the 116th Number of the Gazette of Health, page 239. Like the Scotch Pills, they are chiefly composed of aloes.

Or, (A)

Take of socotrine aloes in powder, 2 drachms;
Soft soap, 3 drachms.

After mixing them together in a marble mortar, boil them gently in a pint of water for fifteen minutes, and then add Epsom salt, from six to twelve drachms.

Or, (B)

Castor oil, 2 ounces;
Spirit of turpentine, 2 tea-spoonsful;
Gruel, half a pint.

These are prescribed in cases of obstinate constipation, when the rectum and colon are free from irritation or inflammatory excitement.

No. 4.—*Emollient Clyster.*

Take of linseed tea, from 8 to 12 ounces;
Cold-drawn linseed oil, from 2 to 3 ounces;

Or, (A)

Take of decoction of marshmallow-root, from 8 to 12 ounces;
Olive oil or cold-drawn linseed ditto, from 2 to 4 ounces;

Or, (B)

Take of gruel or thin starch, 12 ounces;
Olive oil or fresh butter, from 2 to 3 ounces;

Or, (C)

Take of thin hartshorn jelly, 12 ounces;
Fresh butter, 1 ounce.

These are employed in cases of costiveness attendant on piles, inflammatory action, irritation, ulceration or stricture in the rectum. The two latter are also exhibited two or three times a day, to nourish the body, when food cannot be introduced into the stomach. The

first is a favourite remedy with Mr. Cline in irritative affections of the rectum and kidneys.

No. 5.—*Tonic Clyster.*

Take of Peruvian bark in fine powder, from 3 to 6 drachms;
Gruel, half a pint;

Or, (A)

Take of decoction of Iceland moss, from 8 to 12 ounces;
Peruvian bark in powder, 4 drachms.—Mix;

Or, (B)

Take of decoction of Peruvian bark, from 8 to 12 ounces;
Starch powder, 3 drachms.—Mix;

Or, (C)

Take of decoction of bark, from 6 to 8 ounces;
Extract of bark, 3 drachms.—Mix.

These have been found very beneficial in cases of debility, when the stomach was too irritable to retain a tonic medicine, and when the patient had not the power of swallowing, as in the putrid sore throat. They have also been administered, with success, in cases of intermittent fevers, attended with great debility and irritation of the stomach and bowels. It is worthy of notice, that in cases of intermittents and other diseases, in which the Peruvian bark taken into the stomach excited nausea and purging, the clyster of the decoction of bark with the extract (the last formula), has generally quieted the stomach, and occasioned constipation. The composition of the decoction of Iceland moss and Peruvian bark (the second of the above formula), has been found very beneficial in cases of fluor albus and mucous dis-

charge from the bladder, and in preventing miscarriage in those who are subject to it, between the second and third month of gestation. When the bowels are confined, or when the clyster occasions constipation, a little Epsom salt should be added. A tonic clyster is generally repeated three times a day.

No. 6.—*Emetic Clyster.*

Take of oxymel of squills, 1 ounce;
Tartarised antimony, from 4 to 8 grains;
Water, half a pint—Mix.

This composition, when injected at the temperature of one hundred degrees (Fahr.) often excites vomiting. It has been found beneficial in cases of hooping cough, and it is said, very seldom fails in terminating a paroxysm of spasmodic asthma. Some French physicians employ a decoction of tobacco, to excite vomiting or nausea; and others introduce a suppository of tobacco, both of which have produced an alarming degree of debility.

No. 7.—*Exciting or Stimulating Clyster.*

Take of infusion of cloves, from 8 to 12 ounces;
Tincture of galbanum, 4 drachms—Mix.

Or, (A)

Take of infusion of horseradish, from 8 to 12 ounces;
Compound tincture of benzoin, 4 drachms;
Honey, half an ounce.

Mix the compound tincture with the honey in a mortar, and then add, by degrees, the infusion. To be administered lukewarm.

Some French physicians add the compound spirit of ammonia, and others the sulphuric ether to the above formulæ; but the remedy being administered warm,

they generally escape before the liquid is injected, and when particular care is taken to prevent evaporation, they often excite a distressing degree of irritation, frequently passing up the intestinal canal, so as to escape by the mouth with great rapidity. The exciting or stimulating clyster is employed in cases of debility of the muscles of the rectum and of the sphincter muscle of the bladder; the former occasioning a lodgment of fæces in the rectum, and the latter an involuntary escape of the urine. They are also employed to stimulate the nerves of the pelvis in cases of palsy, either of the bladder, rectum or lower extremities; and of a species of local debility, very common among French debauchees.

No. 8.—*Diffusible Clyster.*

Take of barley water, from 6 to 8 ounces;
Brandy, from 1 to 6 table-spoonsful—Mix.

Or, (A)
Sherry or Madeira wine, from 6 to 8 ounces.

The brandy should not be added to the barley water until the time of administering it, and the wine should be warmed, by placing it, secured in a bladder, in warm water, till it is about blood heat.

This lavement is only employed in cases of great prostration of strength, as the last stage of typhus fever and putrid sore throat. In cases of suspended animation, it is an important remedy.

No. 9.—*Narcotic or Anodyne Clyster.*

Take of linseed tea, gruel or thin starch, from 6 to 8 ounces;
Purified opium, from 2 to 6 grains.

Dissolve the purified opium in a little warm water, and then add it to the other ingredient.

This composition is employed in cases of irritation of the rectum and colon, of spasms in any part of the intestinal canal and of the uterus, of diarrhœa, dysentery, inflammation or irritation of the kidneys, bladder, and prostate gland, irritative ulceration of the rectum, a calculus lodged in a ureter, retention of urine from spasm or inflammation, &c. It has also been found very beneficial in allaying the nausea attendant on pregnancy. Some practitioners prefer an opiate suppository to this clyster, but in irritative affections of the rectum, or of parts in its neighbourhood, the latter is preferable on account of its also acting as a fomentation.

No. 10.—*Diuretic Clyster.*

Take of oil of turpentine, from 3 to 6 drachms;
Linseed oil, from 2 to 4 ounces;
Decoction of marshmallow root, 8 ounces—Mix.

This is generally administered twice a day in cases of suppression or paucity of urine.

No. 11.—*Vermifuge Clyster.*

Take of infusion of Indian pink, 6 ounces;
Sulphate of iron, from 4 to 10 grains—Mix.

Or, (A)

Take of Peruvian bark, in fine powder, 6 drachms;
Alcaline liquor of iron, 3 drachms;
Liquor of potass, 1 drachm;
Infusion of wormwood or rue, from 8 to 12 ounces—Mix.

Or, (B)

Take of infusion of wormwood or rue, 12 ounces;
Sulphuret of potass, 20 grains—Mix.

Or, (C)

Take of olive oil, 8 ounces;

Spirit of turpentine, 1 ounce—Mix.

Or, (D)

Take of olive oil, 8 ounces;

Essential oil of savin,

Essential oil of rue,

Essential oil of wormwood, of each 30 drops —Mix.

Or, (E)

Take of olive oil, 8 ounces;

Common oil of amber, or oil of hartshorn, from 1 to 2 drachms.—Mix.

These lavemens have been highly recommended by several eminent physicians of France as a certain remedy for the species of worms, termed ascarides, which occupies the lower portion of the intestinal canal. An eminent physician of Italy informs us, that he found a lavement of olive oil a remedy not only for ascarides, but also for every other species of worm that forms in the intestinal canal, when taken to the extent of an ounce. Ascarides, for which the above lavemens are recommended, are so enveloped in slime, that no oily substance injected into the rectum can come in contact with them. Previously to the use of an oily article, it is therefore good practice to carry off superabundant slime by the use of an active vermifuge purgative, as the basilic powder, or the compound powder of scammony with calomel, of the London Pharmacopœia, and a lavement of sulphuret of potass (a scruple) and infusion of wormwood and senna (a pint), the latter of which has been found very beneficial in removing slime from the rectum. This clyster we have lately found very efficacious in a case of St. Vitus's dance, which was evidently occasioned

by ascarides in the rectum. In a most distressing case of ascarides, in an elderly gentleman, of long standing, the second of the vermifuge clysters (A) (bark powder, infusion of wormwood, and sulphate of iron) so completely succeeded in removing the cause, that after persevering in its use a fortnight, he continued free from the disease.

No. 12.—*Anti-inflammatory Clyster.*

Take of fresh rose water, 3 ounces;
Pure water, 4 ounces;
Liquor of acetate of lead, 30 drops—Mix.

Or, (A)

Take of acetate of zinc, 20 grains;
Rose water, 3 ounces;
Pure water, 4 ounces—Mix.

The above (administered cold) are held in great estimation in cases of inflammatory piles and chronic inflammation of the mucous membrane of the rectum by several eminent surgeons. When the system is plethoric, abstraction of blood should precede the use of either of them.

No. 13—*Astringent Clyster.*

Take of alum, 30 grains;
Fresh rose water, 3 ounces;
Pure water, 4 ounces—Mix.

Or, (A)

Take of infusion of logwood, 8 ounces;
Alum, from 30 to 60 grains;
Tincture of gum e kino—3 drachms—Mix.

Or, (B)

Take of infusion of logwood, 8 ounces;
Alum, from half a drachm to a drachm—Mix.

Or, (C)

Take of lime water, from 6 to 8 ounces;
Starch jelly, 4 ounces;
Tincture of gum kino, half an ounce;
Tincture of opium, 40 drops—Mix.

The above are recommended in cases of prolapsus of the anus and uterus, cases of piles from relaxation, passive discharge (excessive) of blood from the rectum or vagina, and also in active cases, after depletion, when the reduced state of the system renders the use of a topical astringent necessary. It is worthy of observation, that in cases of excessive discharge of blood from the uterus, prolapsus of the uterus, and relaxation of the vagina, an astringent lavement has proved more efficacious than an astringent vaginal injection. Some practitioners order the above remedies to be employed in a tepid state, and others in a cold one. The third of the above formula (C) is recommended in cases of obstinate chronic dysentery, or chronic diarrhœa. One half is directed to be carefully injected twice a day. When the parts are in a state of inflammatory excitement, they prove more beneficial when administered at the ordinary temperature of spring water. Remedies of this kind should only be employed in cases of active discharges of blood, under the superintendance of an experienced practitioner.

No. 14.—*Antispasmodic Clyster.*

Take of tincture of asafœtida, 2 drachms;
Rectified oil of amber, 25 drops;
Fresh butter, the size of a pullet's egg;
Gruel, half a pint—Mix well together.

This is chiefly employed in cases of violent hysterics,

or when medicine cannot be administered by the mouth, and also for spasms in the bowels.

No. 15.—*Nutrient Clyster.*

Take of beef or mutton broth, 1 pint;
Arrow-root, a dessert table-spoonful.

Dissolve the arrow-root in the broth, in the usual way, and inject the above quantity (gently) lukewarm.

This lavement is employed in cases of great debility, or to support life, when the patient, from suppuration, ulceration, or stricture in the gullet or fauces, cannot swallow. Some physicians direct from a quarter to half an ounce of Peruvian bark (bruised) to be boiled with the meat in making the broth, in cases of extreme debility from age, and when there is prolapsus of the rectum.

The Clyster or Lavement Apparatus.

A variety of this useful instrument, by Savigny, Weiss, Read, and other ingenious instrument makers of England and France, may be seen at the Medical Hall, 170, Piccadilly.

FINIS.

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